Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ Standard Information Package (SIP)

Thank you for requesting Solarc Systems **Standard Information Package** for Home UVB Phototherapy.
This package contains most of the information that you and your physician will need to:

- Learn more about home UVB phototherapy and Narrowband UVB
- Choose the appropriate SolRx device family and model
- Apply for coverage with your insurance company, if applicable
- Order the equipment.

For more detailed information and pictures, please visit our website at **SolarcSystems.com**

This package includes:

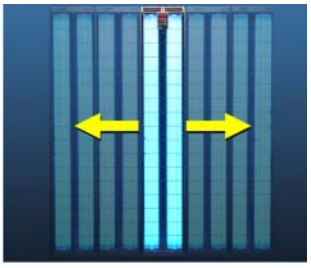
- **Home UVB Phototherapy Selection Guide** for choosing the SolRx Series, UVB-Waveband & number of bulbs
- **Product brochures** for the four device families: E-Series Expandable System, 1000 Series Full Body Panels, 500 Series Hand/Foot & Spot, and the small 100 Series Hand-held unit.
- **Frequently Asked Questions** (FAQ), answering many common questions. (See website for many more.)
- **Understanding Narrowband UVB Phototherapy**, explaining UVB-Narrowband versus UVB-Broadband.
- **Testimonials**: Find out what actual users have to say. This is but a small sample of the feedback received.
- **The Ottawa Home Phototherapy Study**: "Are Narrow-band Ultraviolet B Home Units a Viable Option for Continuous or Maintenance Therapy of Photoresponsive Skin Diseases?" A study of 25 SolRx home units.
- **Tips for Insurance / Doctor's Letter of Medical Necessity / Patient's Letter to Insurance Company**: Includes sample letter templates. (also available as MS-Word templates from the website's download center)
- **Order Form**: This is the form used to purchase the equipment - please keep copies for your own records.

The many benefits of Home UVB Phototherapy:

- Eliminates time consuming trips to the phototherapy clinic.
- Makes it easier to keep to your treatment schedule – fewer missed visits means better results.
- Allows you to go directly from the shower or bath to the lights. This improves the treatment's effectiveness.
- Can reduce and often eliminate the use of topical creams and ointments; saving time and money.
- Can often be used in combination with topical medications for even greater results.
- Allows those too far from a clinic to enjoy the benefits of ultraviolet phototherapy.
- Is used in the privacy of your own home, where YOU are the only user of the equipment.
- Home devices are very low maintenance. The UVB bulbs last 5 to 10 years or longer !
- Device purchase covered by many health insurance plans.

Some other quick facts:

- UVB light occurs NATURALLY in sunlight. SolRx devices make exactly the same light using artificial light sources.
- Artificial light sources have the advantage of providing only the most therapeutic wavelengths of UV light, while minimizing the potentially harmful non-therapeutic wavelengths.
- Many psoriasis sufferers find that their skin gets better in the summer. This is normally a good indicator that UVB phototherapy will be effective.
- UVB light makes Vitamin-D in your skin. Not surprisingly, most people living far away from the earth's equator have a Vitamin-D deficiency, especially in the winter.
- If you have had success at the phototherapy clinic, home phototherapy will almost certainly work. There are thousands of SolRx home phototherapy devices in people's homes worldwide. Solarc Systems was founded in 1992.



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PHILIPS
UVB-Narrowband

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Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ Selection Guide

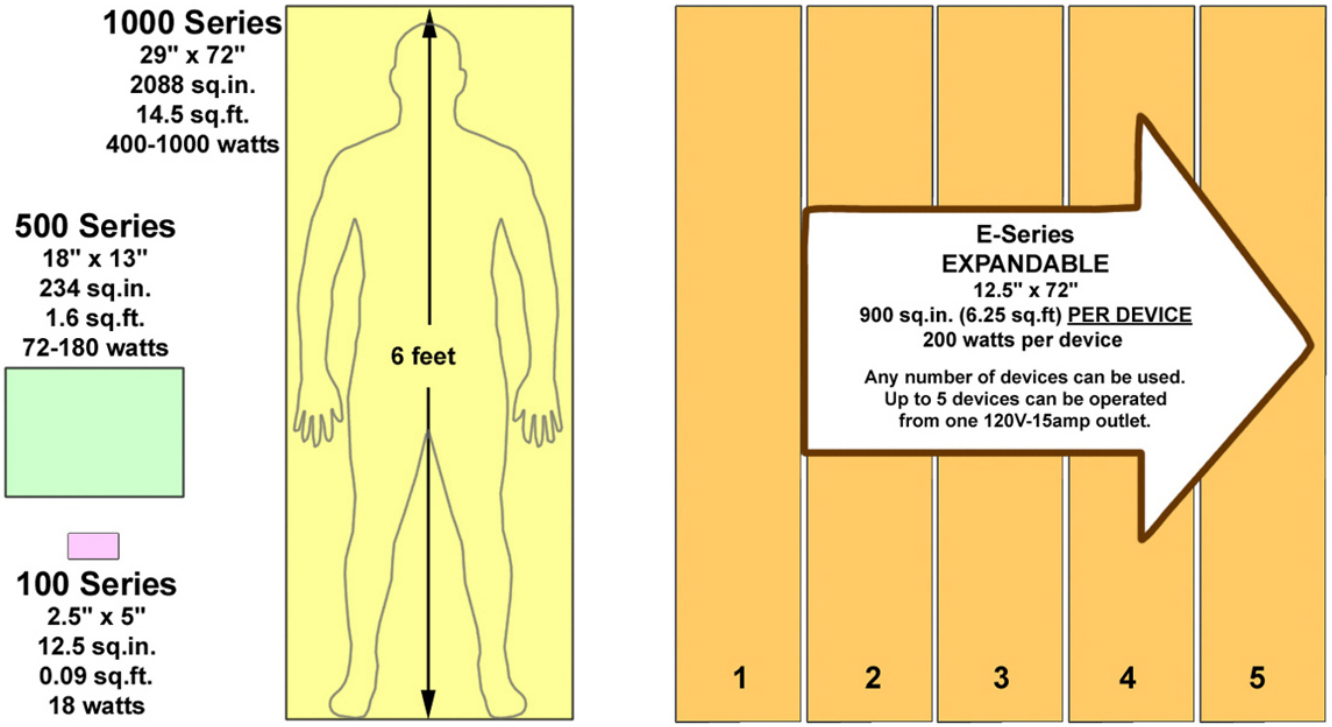
There are **THREE CHOICES** to be made when choosing a SolRx UVB phototherapy device:

1. Which Device Family (SolRx Series): E-Series, 1000-Series, 500-Series or 100-Series ?
2. Which Waveband of Ultraviolet Light: UVB-Narrowband or UVB-Broadband ?
3. How many ultraviolet bulbs ? (replaceable fluorescent lamp tubes)

It is important that you discuss with your physician / healthcare professional the best choices for you; their advice always takes priority over any guidance provided by Solarc, including these selection guidelines. **A physician's prescription is required for all products shipped to USA, regardless of intended use.** The prescription does NOT have to be written by a dermatologist; any medical doctor (MD) is acceptable, including of course general practitioners (GP's), and nurse practitioners.

Each device family, or SolRx "Series", is uniquely designed to perform a different type of phototherapy treatment, generally based on the device's treatment area, shape and size. Within each device family are several "device models" that share the same basic construction and features, but differ in the quantity of bulbs (or in the case of the E-Series, the number of devices), and the wavelength of ultraviolet light they produce. (UVB-Narrowband or UVB-Broadband).

The following chart is properly scaled to show the relative treatment areas of each of the four device families:



SolRx™ Device Family ►	100-Series	500-Series	1000-Series	E-Series Expandable
UVB-Narrowband (UVB-NB) SolRx™ Device Models: [# of bulbs]	120UVB-NB [2]	550UVB-NB [5] 530UVB-NB [3] 520UVB-NB [2]	1790UVB-NB [10] 1780UVB-NB [8] 1760UVB-NB [6] 1740UVB-NB [4]	E720M-UVBNB [2] MASTER E720A-UVBNB [2] ADD-ON
UVB-Broadband (UVB) SolRx™ Device Models: [# of bulbs]	120UVB [2]	550UVB [5] 530UVB [3] 520UVB [2]	1760UVB [6] 1740UVB [4]	E720M-UVB [2] MASTER E720A-UVB [2] ADD-ON

For more information, visit: **SolarcSystems.com**

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1. SolRx Series: E-Series, 1000-Series , 500-Series or 100-Series ? (Which device family ?)

Full Body (A large percentage of head to toe involvement)

When there is a large percentage of affected skin, or there are many small lesions evenly distributed all over the body, 6-foot high devices are the usual choice, either the E-Series Expandable/Multidirectional or the 1000-Series Full-Body Panel. These powerful units can irradiate a large area and efficiently provide head to toe treatments in a reasonable amount of time, typically 1 to 10 minutes per side, depending on the number of bulbs. The charts above show that the E-Series and 1000-Series have a much greater treatment area and total power than the other smaller device families. These devices use exactly the same part numbers of 6 foot long 100-watt fluorescent bulbs that are commonly used in full-sized booths at phototherapy clinics.

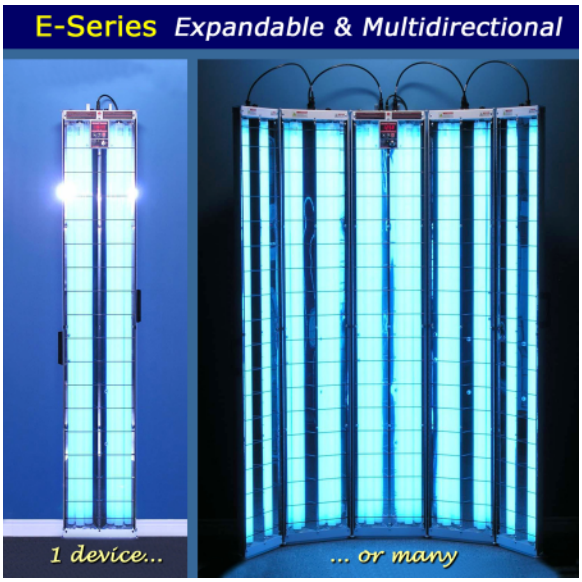
Choose the E-Series Expandable/Multidirectional when:

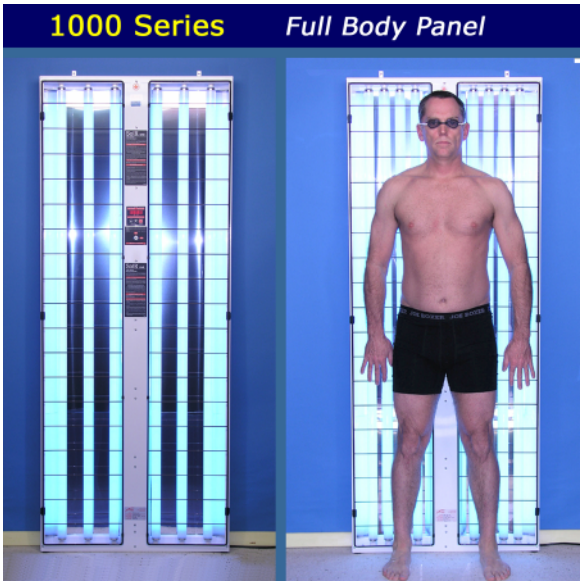
• initial cost is most important, because just one E-Series MASTER device can provide totally effective full body phototherapy (but at the expense of longer treatment times);
• the ability to EXPAND is important, so you can reduce your total treatment time, for example after the effectiveness for your skin condition has been established, or when more funds are available;
• you want the highest performance, because the many configurations of the E-Series are better at delivering ultraviolet light AROUND the patient's body, which further reduces the total treatment time;
• portability is important, because an E-Series system can be very easily separated into individual 33-pound twin-bulb devices, each with its own carrying handle;
• you want the ultimate full-surround booth, now or maybe sometime in the future.

Choose the 1000-Series Full-Body Panel when:

• you feel more comfortable with a simple single-device system, with 20+ years of proven effectiveness;
• an insurance company is paying for a "panel" device only, because they may agree to buy only one single device, and a multiple-bulb 1000-Series has better performance than a 2-bulb E-Series MASTER;
• you want a system with the lowest overall cost-per-bulb;

• there is not enough floor-space for a multidirectional system - the 1000-Series just lies flat against a wall;
• you are familiar with panel type devices, and know that you will never need to expand the system;
• you want to buy one device that you are pretty sure will work, and not any more devices in the future.





Hand & Foot Treatment

Hand & Foot treatments are best given using the 500-Series, as it is designed specifically for that purpose. By using very high performance PHILIPS PL-L36W/01 bulbs, model 550UVB-NB has the greatest light power intensity (irradiance) of all the Solarc devices, which minimizes the treatment time for the often thick psoriatic skin on the hands and feet. All 500-Series models are supplied standard with a "hood" to reduce light leakage, just like at the clinic. The hood can be removed quickly without tools allowing the main unit to be rotated to any position, for example pointing downward to treat the tops of the feet. The 500-Series has a grab handle, built tough and is very easy to transport. Device weights range from 15 to 25 lbs. (520 to 550)

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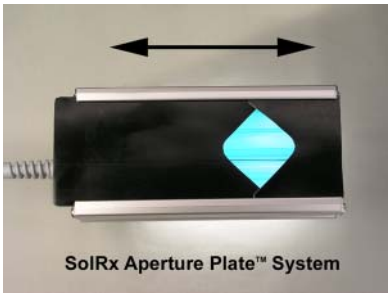
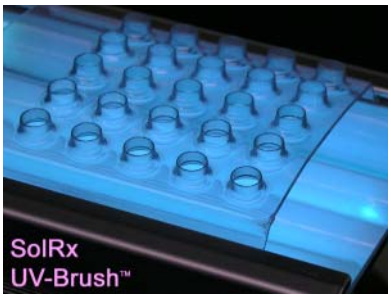
Spot Targeting (Isolated patches)

For spot targeting, there are two possible device family selections, determined by the size and number of treatment sites. If there are only a few small isolated patches, such as elbows and knees, the 12.5 sq.in. treatment area, high irradiance and targeting capabilities of the 100-Series may be the best choice. If the patches are bigger, or spread out over a larger area, the more powerful 500-Series can be used without the hood, to provide about 234 sq.in. (1.6 sq.ft.) of treatment area, which considerably reduces the total treatment time; and the mounting yoke allows the unit to rotate any direction. If there are many small isolated patches, using the small 100-Series to treat them individually may be too time consuming. Consider instead grouping the areas together and using the 500-Series, or even the 1000-Series. If you are treating vitiligo, the 100-Series' Aperture Plate system may be beneficial. The 500-Series hood and yoke do not require any tools.



Scalp Treatment: The SolRx UV-Brush™

The 100-Series is the only device with the ability to treat the scalp of patients with moderate length hair, using the optional SolRx UV-BrushTM. Scalp UVB-Narrowband treatment times are usually much longer than general body treatments, because the hair on most patients blocks a considerable amount of the UV light. A very effective alternative for treating scalp psoriasis is for the patient to cut their hair very short (the shorter the better), and use the 100-Series without the UV-brush, with the clear acrylic window touching the head in close contact with the scalp.



2. Waveband: UVB-Broadband OR UVB-Narrowband (UVB-NB) ?

Waveband selection may be determined by your physician based on the disease being treated, and is ideally indicated on your prescription if so used. UVB-Narrowband (UVB-NB or PHILIPS /01) is now by far the most common choice for psoriasis, vitiligo, and atopic-dermatitis (eczema). Indeed, about 98% of all Solarc devices are now UVB-NB.

UVB-Broadband (FS-UVB or PHILIPS /12), which was formerly the only UVB waveband type available, is also sometimes used for psoriasis, and atopic-dermatitis (eczema); but almost never for vitiligo. UVB-Broadband is considered a more aggressive UV-light therapy than UVB-Narrowband, so it's use is usually reserved for more difficult cases, usually after first trying UVB-NB. UVB-Broadband treatment times are much shorter than UVB-Narrowband, because UVB-Broadband has much greater skin-burning potential; assuming devices with the same number and wattage of bulbs. For more information read our "Understanding Narrowband UVB Phototherapy" article.

Waveband selection for other skin diseases such as CTCL, PMLE, pruritus and others are strictly by physician guidance.
UVB-Narrowband devices have an "UVB-NB" or "UVBNB" suffix in the model number, such as 1780UVB-NB. UVB-Broadband models have the "UVB" suffix only, such as 1760UVB.

Several other different waveband type bulbs can be fitted into some Solarc devices, including UVA ("PUVA" aka 350BL aka Philips /09 - not available for the 100-Series), and UVA-1 (365nm peak aka Philips /10). These bulbs are dimensionally interchangeable, but if making a waveband change, it is important to revise the device label to correctly list the waveband type. Users Manuals, exposure guidelines and treatment times are not available for all wavebands.

3. Number of Bulbs ? (replaceable fluorescent lamp tubes)

The number of bulbs has one main purpose: to reduce treatment time. There is a direct relationship between the light power of a device (Irradiance), Dose and Time, as expressed by the equation: **TIME = DOSE / IRRADIANCE**
Increasing the number of bulbs increases the irradiance and therefore reduces the treatment time.

The goal for phototherapy equipment is almost always to reduce the total patient treatment time, so it is less onerous to take treatments, and the patient more willing to follow the treatment schedule. It follows that, when comparing devices of similar size and type, the best equipment value can generally be determined by simply calculating the cost per watt of total bulb power; for example, by simply dividing the price in dollars by the total bulb wattage. This, of course, assumes that the devices being compared are the same type (multidirectional, panel, hand&foot, or hand-held), and have comparable value-added features such as built-in digital timer, switchlock, reflectors and other accessories.

Continued…

The second last number in the SolRx model number denotes the number of bulbs. For instance, a 1740UVB has 4 bulbs and a 530UVB-NB has 3 bulbs. The only exception to this is the 10-bulb 1790UVB-NB.

The choice of number of bulbs is influenced by the skin condition being treated and, in the case of psoriasis, your skin's natural pigment (skin type). For other skin conditions, please consult your physician. Solarc may also be able to provide information from our library.

UVB-Broadband devices usually have fewer bulbs than UVB-Narrowband devices because UVB-Broadband has considerably greater potential to cause erythema (burning), theoretically by a factor of 4 to 5 times. In other words, UVB-Narrowband treatment times are typically much longer than UVB-Broadband, so more bulbs are needed to compensate.

Psoriasis: For FULL-BODY **UVB-Narrowband** treatment of psoriasis, the 1000-Series 6 or 8 bulb models (1760UVB-NB & 1780UVB-NB) have become the most popular. Based on feedback from our after sale follow-ups, they provide reasonable treatment times (1-10 minutes per side) and work well for most people. For full body psoriasis patients that require higher dosages, such as dark skinned people or perhaps determined by experience from the phototherapy clinic, or for those that are not concerned with price, the 10-bulb 1790UVB-NB is a good choice, as is the new multidirectional and expandable E-Series, which offers the very best performance amoung several other innovative features. The E-Series is unique in its ability to start as a super-economical 6-foot 2-bulb 200-watt panel, and then later be EXPANDED by adding more 2-bulb devices to eventually surround the patient and provide so-called "multidirectional" phototherapy, with much better light delivery efficiency than flat-panel type devices.

For FULL-BODY **UVB-Broadband** treatment of psoriasis, because UVB-Broadband treatment times are quite short, the 4-bulb 1740UVB is usually adequate (the 1740UVB was the original Solarc device from 1992). The 6-bulb 1760UVB is a good choice if you might want to later change the waveband to UVB-Narrowband.

500-Series model selection is now dominated by the powerful 5-bulb 550UVB-NB, especially for hand & foot treatments, because higher doses are typically required due to the thicker skin AND it has more uniform light output at the recommended hand & foot treatment distance of 3 inches, which is quite close to the bulbs. The 3-bulb 530UVB-NB may be a good selection for those with less severe disease and intentions to use the device only at the spot treatment distance of 8 inches. Consider the 2-bulb 520UVB-NB for even less demanding cases or perhaps if there is a need to economize; for example, with a total of 72-watts of bulb power, a 520UVB-NB still has 4-times the power of the 18-watt 100-Series Hand-held.

Vitiligo: Vitiligo doses are much less than those for psoriasis, so vitiligo patients can often use the device models with fewer bulbs (such as the 1740UVB-NB / 1760UVB-NB and 520UVB-NB / 530UVB-NB). However, the devices with more bulbs will always minimize total treatment time, and make it easier to follow the treatment regimen. Vitiligo is normally not treated with UVB Broadband.

Eczema / Atopic Dermatitis: Treatment times for eczema / atopic dermatitis are in between those for psoriasis and vitiligo; any number of bulbs could be chosen.

More Questions?

If you have any more questions, contact us toll free at **1-866-813-3357** [705-739-8279]. We can also be reached by fax at 705-739-9684 or by email at **info@SolarcSystems.com** . Our website is **SolarcSystems.com** We will do our best to help.

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Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ E-Series

EXPANDABLE !

Try one device by itself, then at any time add devices to EXPAND your system & reduce treatment times !

Receptacles for Add-On devices

Brackets mount the Master device flat-to-wall to minimize floor space. The device is only 3 inches thick Installation takes less than 10 minutes

Built-in hinges connect devices together so they swing open and closed like a door (0-180 degrees)

Reliable 0-20 minute digital countdown timer with red LED display easily seen while wearing the UV goggles supplied

Keyed switchlock to prevent unauthorized usage

Multi-faceted anodized aluminum reflectors boost UVB light output

Two 6 foot long UVB bulbs per device Philips TL100W/01 UVB-Narrowband or FS72T12/UVB/HO UVB-Broadband These are exactly the same bulbs as used by phototherapy clinics

Handles for positioning and transport Each device weighs only 33 pounds

For long term serviceability, built with common electrical components and a minimum of plastic parts

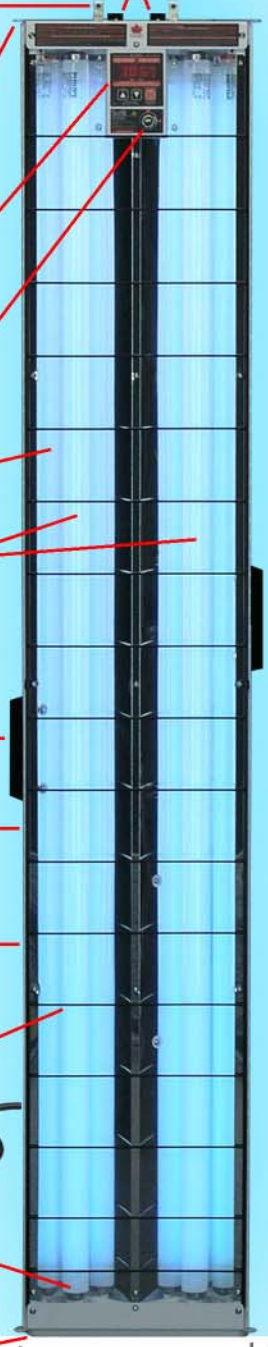
Powder painted 18 & 20 gauge steel construction, securely fastened with nyloc nuts for durability

The wire guard is easily removed for access to the bulbs

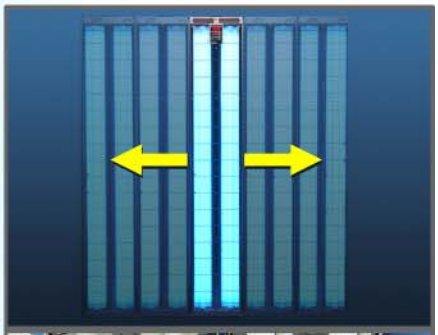
Uses standard 120V power No special electrical requirements Connect up to 5 devices per circuit

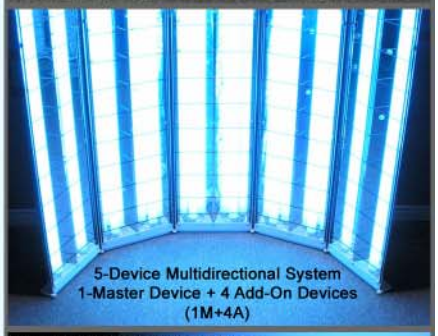
Bulbs designed as low as possible to the floor to minimize the need for a patient platform to treat the lower leg

Large footprint, low friction sliders glide over the floor for easy positioning of devices



Master Device
Model E720M-UVBNB
2 Bulbs, 200 Watts





PHILIPS
UVB-Narrowband

The **SolRx E-Series** is the world's only modular phototherapy system that can be expanded from a low-cost 2-bulb panel, all the way to highly efficient multidirectional wrap-around booth. It is the perfect solution for anyone that is not certain about phototherapy, or for those that simply want the best. For the treatment of psoriasis, vitiligo and eczema.

Please see **SolarcSystems.com** for much more information.

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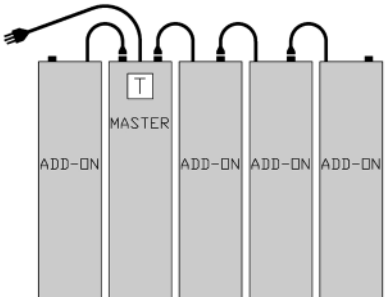
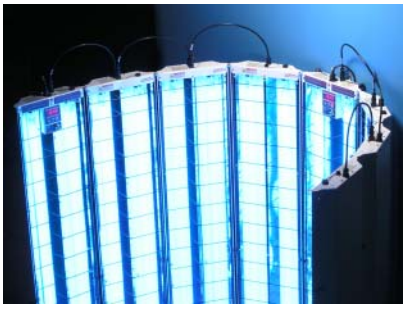
SolRx E-Series Expandable & Multidirectional

The Master device by itself is fully capable of effective UVB treatment.



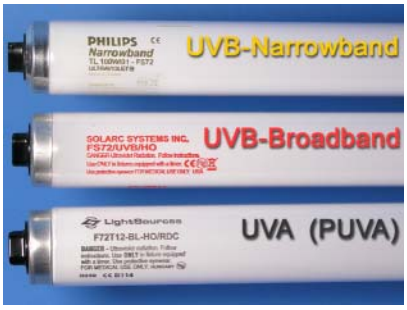
One MASTER can control up to 4 Add-On devices (5 devices total).



Any number of devices can be hinged together, and adjusted to any shape.

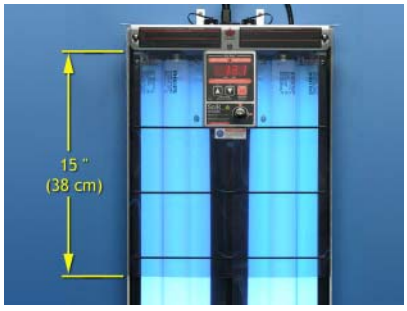
Devices fold-up nicely for storage, and quickly swing open for treatment.

The digital timer and switchlock are important standard safety features.



Several different UV phototherapy waveband bulb types can be fitted.

Some possible treatment positions; all at 8-12 inches from the bulbs.



The optional Face Shield can be used to minimize UV to the face.

Handles make it easy to move. One device weighs only 33 pounds !

The SolRx **E-Series** provides countless configuration options. All devices are supplied fully assembled with new bulbs and hardware kit. Master devices include UV protective goggles, and a comprehensive User's Manual with detailed exposure guidelines for psoriasis, vitiligo and eczema. Please visit **SolarcSystems.com** for much more information.

Dimensions (inches):	Device only: 3 x 13 x 72 high	Boxed: 7 x 17 x 78
Weight:	Device only: 33 pounds (15kg)	Boxed: 40 pounds (18 kg)
Electrical:	Uses standard 120Volt - 3 prong grounded outlet *	
Home Warranty:	4 years on device, 1 year on the bulbs; plus our Arrival Guarantee	

All SolRx models are US-FDA and Health Canada compliant.

US Federal law restricts this device for sale by or on order of a Physician.

UVB-Narrowband Models: (All devices have two 100-watt bulbs)
MASTER Device: E720**M**-UVBNB (complete with timer & switchlock)
ADD-ON Device: E720**A**-UVBNB (no timer or switchlock)
*A maximum of 4 ADD-ON devices can be connected to one MASTER.
Each MASTER device requires its own dedicated 15-amp circuit.

PHILIPS
UVB-Narrowband

Solarc Systems is ISO-13485 certified for the design & manufacturing of medical ultraviolet phototherapy equipment.

INTERTEK ISO 13485:2003

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SOLARC SYSTEMS INC.

Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ 1000 Series

Full Body Panel

Two simple brackets mount the unit flat-to-wall or in a corner to minimize floor space. The device is only 3 1/2 inches thick. All hardware is supplied. Installation takes less than 10 minutes

Reliable 0-20 minute digital countdown timer with UL 10Amp ballast rating. The red LED display is easily seen while wearing the UV goggles

Anodized aluminum reflectors boost UVB light output. Parabolic sections at outer bulbs improve peripheral output

Keyed switchlock to prevent unauthorized usage

6 foot long UVB bulbs (4,6,8,10)
Philips TL100W/01 UVB Narrowband or FS72T12/UVB/HO UVB Broadband
These are exactly the same bulbs as used by phototherapy clinics

For long term serviceability, the device is built with common non-proprietary electrical components and a minimum of plastic parts

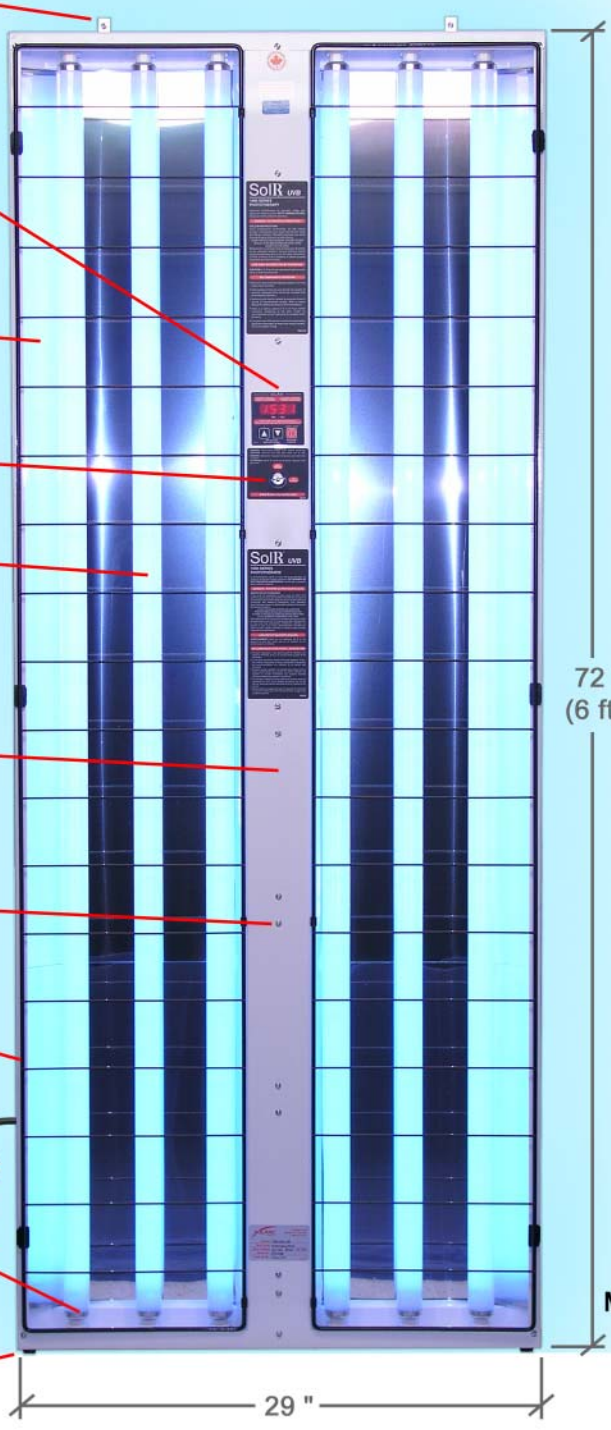
Powder painted 20 gauge steel construction securely fastened with nyloc nuts for durability

Hinged wire guards swing out of the way for bulb cleaning

Uses standard 120V power
No special electrical requirements

Bulbs designed as low as possible to the floor to minimize the need for a patient platform to treat the lower leg

Rubber bumpers rest on the floor



PHILIPS
UVB-Narrowband

Model 1760UVB-NB
6 Bulbs, 600 Watts

The **SolRx 1000 Series** is a **UVB-Narrowband** or **UVB-Broadband** Full Body Panel for the treatment of psoriasis, vitiligo and eczema. It has a treatment area of 29” x 72” (14.5 square feet).

Since 1992, these remarkable devices have been providing relief for thousands of sufferers worldwide. The 1000 Series has become the de-facto standard for cost effective full body UVB phototherapy.

See other side and **SolarcSystems.com** for more information.

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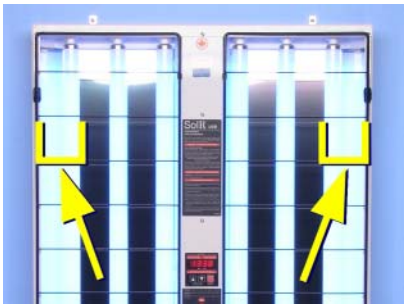
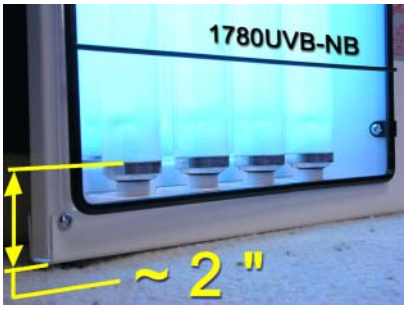
SolRx 1000 Series Full Body Panel - 6 Foot

The device is usually mounted flat-to-wall using two brackets.

It can also be mounted in a corner. The bottom just rests on the floor.



Parabolic reflectors at the outer bulbs provide better coverage to your sides.



The bulbs are very close to the floor to reduce need for a patient platform.

The device uses a standard 3-prong grounded wall outlet. (120 Volt AC)

The unit can accept all three ultraviolet phototherapy bulb types.

The digital timer and switchlock are important standard safety features.

Some possible treatment positions. All at 8-12 inches from the bulbs.

It's compact and has a reasonable weight. One person can handle it.

Twenty years of experience has proven the **SolRx 1000 Series** to be a convenient, effective and economical alternative to hospital phototherapy. All units are supplied fully assembled with new bulbs, UV protective goggles, hardware kit, and comprehensive User's Manual with detailed exposure guidelines for psoriasis and vitiligo. There is nothing else you need to purchase. Please visit **SolarcSystems.com** for much more information and pictures.

Dimensions (inches):	29 x 3.5 x 72 high (device only)
Weight:	60 to 74 pounds (models 1740 to 1790, device only)
Electrical:	Uses standard 120Volt - 3 prong grounded outlet, max 8 amps (1790)
Home Warranty:	4 years on device, 1 year on the bulbs; plus our Arrival Guarantee

All SolRx models are US-FDA and Health Canada compliant.

US Federal law restricts this device for sale by or on order of a Physician.

Four **UVB-Narrowband** models:
1740UVB-NB: 4 bulbs, 400 watts
1760UVB-NB: 6 bulbs, 600 watts
1780UVB-NB: 8 bulbs, 800 watts
1790UVB-NB: 10 bulbs, 1000 watts

Two **UVB-Broadband** models:
1740UVB: 4 bulbs, 400 watts
1760UVB: 6 bulbs, 600 watts
Bulb types are interchangeable.
UVA & UVA1 also available.

PHILIPS
UVB-Narrowband

Solarc Systems is ISO-13485 certified for the design & manufacturing of medical ultraviolet phototherapy equipment.

INTERTEK ISO 13485:2003

Toll Free: 1-866-813-3357 (705-739-8279)
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SolArcSystems.com

1515 Snow Valley Road, Minesing, ON L0L 1Y3

SOLARC SYSTEMS INC.

Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ 500 Series

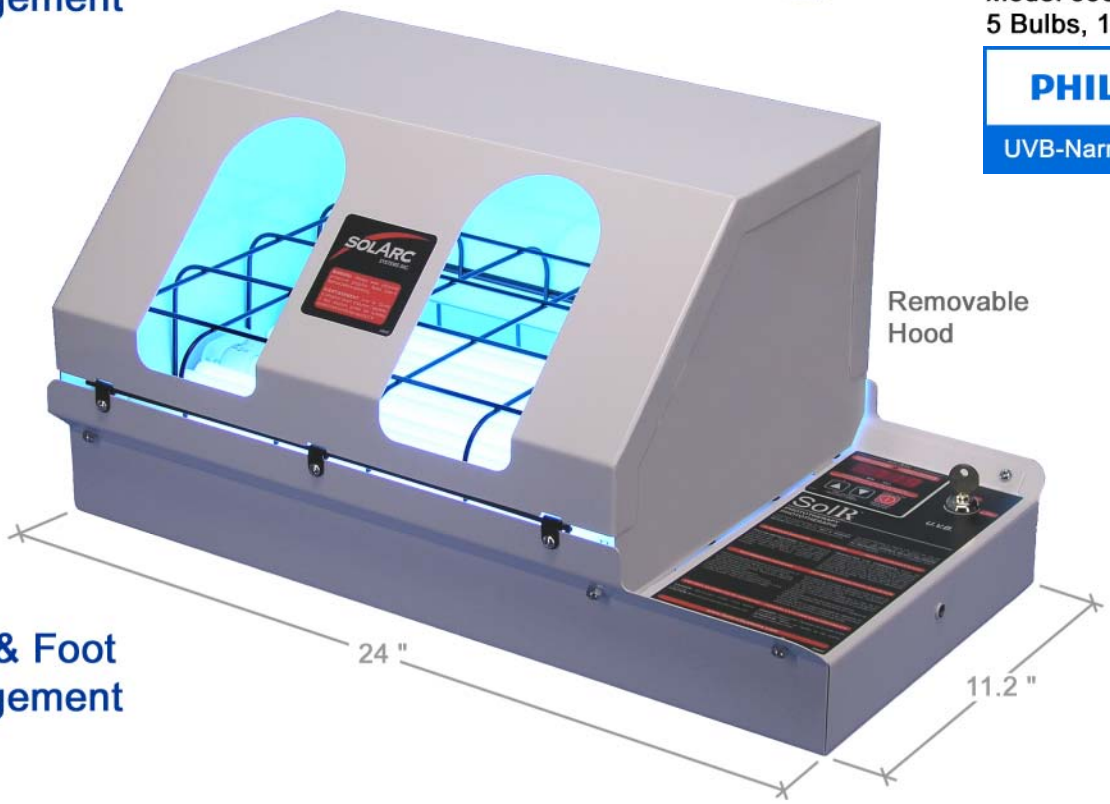
Hand & Foot Treatment
Spot Treatment

Removable
Mounting Yoke

Spot Treatment Arrangement

Model 550UVB-NB
5 Bulbs, 180 Watts

PHILIPS
UVB-Narrowband



Removable
Hood

Hand & Foot Arrangement

The **SolRx 500 Series** is a portable mid-size **UVB-Narrowband** device for the treatment of psoriasis, vitiligo & eczema.
It has a treatment area of 18” x 13” (1.6 square feet).

This versatile unit can articulate to almost any position to provide targeted treatment of the hands, feet or any other area of the body. Powerful twin-tube compact fluorescent bulbs reduce treatment times.

See other side and **SolarcSystems.com** for more information.

SOLARC SYSTEMS INC.

SolRx 500 Series Hand/Foot & Spot Treatment

The Yoke allows the device to be rotated 360° to almost any position.

In seconds you can tilt it as needed. Treatment distance is 5 to 9 inches.

It's perfect for Narrowband-UVB treatment of the face for vitiligo.

Or put it on the floor for psoriasis treatment of the knees and leg.

For foot treatment, install the Hood and tilt. No tools are required.

Or remove the Yoke and use it as a hand/foot unit, just like at the clinic.

Powerful UVB-Narrowband twin-tube bulbs reduce treatment times.

The digital timer and switchlock are important standard safety features.

Grab it by the handle and take it anywhere !

Besides the **SolRx 500 Series**' unbeatable versatility, is its impressive light output. Modern Philips 36-watt PL-L36W/01 compact fluorescent bulbs provide considerably greater UVB-Narrowband Irradiance and shorter treatment times than competitive devices using conventional 20-watt "T12" bulbs. All of the above configurations can be obtained without the use of any tools. All units are supplied fully assembled with new bulbs, removable hood & yoke, UV protective goggles, and comprehensive User's Manual with detailed exposure guidelines for psoriasis and vitiligo. There is nothing else you need to purchase. Also available UVB-Broadband, UVA & UVA1. Please visit **SolarcSystems.com** for more info.

Dimensions (inches):	24 x 13.5 x 6.5 high (without hood or yoke)
Weight:	15 to 25 pounds (including hood & yoke)
Electrical:	Uses standard 120 volt - 3 prong grounded outlet, max 1.8 amps (550CR)
Home Warranty:	4 years on device, 1 year on bulbs; plus our Arrival Guarantee

Four **UVB Narrowband** models:
520UVB-NB: 2 bulbs, 72 watts
530UVB-NB: 3 bulbs, 108 watts
550UVB-NB: 5 bulbs, 180 watts
550UVB-NB-CR (For Clinic Use)

PHILIPS
UVB-Narrowband

All SolRx models are US-FDA and Health Canada compliant.

US Federal law restricts this device for sale by or on order of a Physician

Solarc Systems is ISO-13485 certified for the design & manufacturing of medical ultraviolet phototherapy equipment.

INTERTEK ISO 13485:2003

Toll Free: 1-866-813-3357 (705-739-8279)
Fax: 705-739-9684
Email: info@SolArcSystems.com
SolArcSystems.com

1515 Snow Valley Road, Minesing, ON L0L 1Y3

SOLARC SYSTEMS INC.

Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ 100 Series

Small Spot Treatment
Scalp Treatment

Bulbs facing down

Model 120UVB-NB
2 Bulbs, 18 Watts

PHILIPS
UVB-Narrowband

Bulbs facing up

Controller not shown

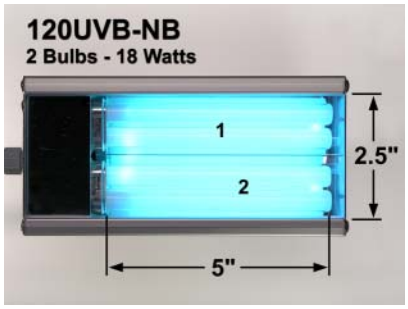
The **SolRx 100 Series** is a small **UVB Narrowband** device for the treatment of psoriasis, vitiligo, and eczema. It has a treatment area of 2.5 x 5 inches (12.5 square inches).

The wand is hand-held or self-supporting, and complete with the adjustable Aperture Plate™ system for accurate spot targeting. Optional accessories include the Light Brush™ for scalp treatment and Positioning Arm™ for hands-free operation.

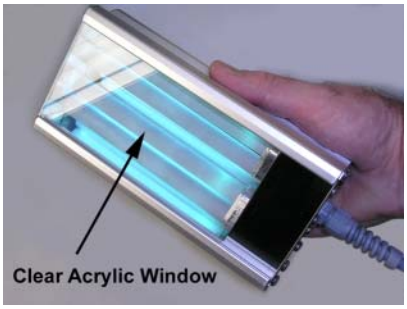
See other side and **SolarcSystems.com** for more information.

SOLARC SYSTEMS INC.

SolRx 100 Series Small spot & Scalp Treatment



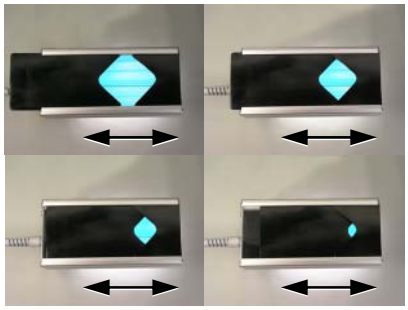
Model 120UVB-NB uses two Philips PL-S9W/01 UVB NarrowBand bulbs.



The clear acrylic window allows the wand to be placed directly on skin !

The lightweight aluminum body helps keep the device cool.

One of the many different ways to position the wand on a surface.



The Aperture Plate™ feature can adjust the treatment area in seconds.

The optional Light Brush™ helps clear hair so UV light can get to the scalp.

The digital timer and switchlock are important standard safety features.

The optional Positioning Arm allows hands-free use. (Desk mount shown)

The device can be operated from within its rugged carrying case.

Unlike other handheld units using only a single 9-watt bulb, the **SolRx 100 Series** can be equipped with **two 9-watt bulbs** for double the input power, double the treatment area, and a more useful treatment area shape (more square). The wand's all-metal construction and clear acrylic window allow it to be placed directly on the skin for significantly higher UVB-Narrowband light output and shorter treatment times than competitive units. It is also easier to use. All units are supplied fully assembled with new compact fluorescent bulbs, UV protective goggles, set of 6 Aperture Plates, carrying case, and comprehensive User's Manual with detailed exposure guidelines for psoriasis and vitiligo. The Light Brush™ and Positioning Arm™ are optional.

Dimensions (inches): Case 4.5 x 12 x 16 Wand: 2.25 x 3.5 x 7
Case weight: 8 lbs (Model 120UVB-NB including all components)
Electrical: Uses standard 120 volt - 3 prong grounded outlet, 0.4 amps
Home Warranty: 4 years on the device and 1 year on the bulbs

Two **UVB Narrowband** models:
120UVB-NB: 2 bulbs, 18 watts
110UVB-NB: 1 bulb, 9 watts
Also available UVB-Broadband & UVA1

PHILIPS
UVB-Narrowband

All SolRx models are US-FDA and Health Canada compliant.

US Federal law restricts this device for sale by or on order of a Physician

Solarc Systems is ISO-13485 certified for the design & manufacturing of medical ultraviolet phototherapy equipment.

INTERTEK ISO 13485:2003

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SOLARC SYSTEMS INC.

Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolRx™ Frequently Asked Questions (FAQ)

What is ultraviolet (UV) phototherapy ?

Ultraviolet phototherapy is the use of specific wavelengths of the sun's natural spectrum for the treatment of skin disorders such as psoriasis, vitiligo and atopic dermatitis (eczema). Phototherapy devices use either the short wavelength Ultraviolet-B (UVB) rays or the longer rays of Ultraviolet-A (UVA). UVB light produces biological reactions within the skin that lead to clearing of the lesions. UVB is also the waveband of light that produces Vitamin-D in our skin; essential to good health.

How long has ultraviolet phototherapy treatment been used ?

The benefits of UV phototherapy for psoriasis was recognized by the medical community as early as 1925 by a study of the effects of natural sunlight on psoriasis patients. Devices to produce artificial light for the treatment of psoriasis have been in use for over 50 years and today there is a phototherapy clinic in most cities. Home units are a more recent phenomenon, as lower costs have made them more attainable to the average person. This remarkable ancient Egyptian wall carving shows a sick infant being treated with sunlight, probably for infant jaundice (Hyperbilirubinaemia). Today, affected babies receive the same treatment, albeit from artificial light sources. The therapeutic rays are in the UVA spectrum in this case. Our bodies evolved in an environment bathed in ultraviolet light, so we developed responses to use the light beneficially (Vitamin-D photosynthesis) and to protect us from over-exposure (tanning). Our modern lifestyles; being fully clothed, having protection from the sun, and many of us living in extreme northern/southern latitudes; has significantly reduced our UV exposure and contributed to health problems in some.

Will home UVB phototherapy work for me ?

The best way to determine if home UVB phototherapy will work for you is to first get a proper diagnosis from your physician, and, if warranted, take treatments at a phototherapy clinic near you to establish efficacy. SolRx devices use exactly the same UV bulbs as used in the clinic, so if the clinic treatments prove successful, there is an excellent chance that home phototherapy will also work, as supported by the medical study of twenty-five SolRx UVB-Narrowband home units in the Ottawa area: "Are Narrow-band Ultraviolet B Home Units a Viable Option for Continuous or Maintenance Therapy of Photoresponsive Skin Diseases?". If you cannot attend a phototherapy clinic, your response to natural sunlight is usually a good indicator. Does your skin condition get better in the summer? Have you ever deliberately taken sun exposure to improve your skin? Do you take vacations to sunny climates to clear your skin? Have you had some success clearing your psoriasis using tanning equipment?
Note: Tanning equipment emits UVA light, but contains some UVB, up to a government regulated maximum of approximately 8%. For comments from actual home phototherapy users, see our **Testimonials** brochure.

Should I be using UVA or UVB for home phototherapy ?

For the vast majority of people, UVB is the best treatment option. UVA is less desirable because it requires the use of the drug methoxsalen (Psoralen), taken orally or in a pre-treatment "bath", and carefully measured doses of UVA light using a light meter. These “PUVA” treatments, are much more difficult to administer in the home than UVB. PUVA is therefore usually reserved for the very worst cases and is best done in a clinic. PUVA also has more side effects than UVB. UVB home phototherapy does not require use of any drug to be effective, and does not require use of a UVB light meter. UVB home phototherapy can also be used in combination with topical drugs applied directly to the lesions for greater efficacy. For example: tar preparations (LCD), steroids and calcipotriene (Dovonex, Dovobet, Taclonex).

What is the difference between UVB "Broadband" and UVB "Narrowband" ?

Conventional "Broadband" UVB bulbs emit light in a broad range that includes both the therapeutic wavelengths specific to the treatment of skin diseases plus the shorter wavelengths responsible for sunburning. Sunburning has a negative therapeutic benefit, increases the risk of skin cancer, and limits the amount of therapeutic UVB that can be taken. "Narrowband" UVB bulbs, on the other hand, emit light over a very short range of wavelengths concentrated primarily in the therapeutic range. UVB Narrowband is therefore theoretically safer and more effective than UVB Broadband, but requires either longer treatment times or equipment with more bulbs to achieve the same dosage threshold. UVB Narrowband now dominates worldwide new equipment sales, but UVB Broadband will likely always have a role. Solarc's UVB-Narrowband models have an "UVB-NB" suffix in the model number. Broadband models have the "UVB" suffix only. See also our **Understanding Narrowband UVB Phototherapy** brochure.

Continued…

SOLARC SYSTEMS INC.

If necessary, can I switch the UV waveband type in a SolRx device ?
All three SolRx device families can interchangeably use bulbs of any of the three waveband types: UVB-Narrowband, UVB-Broadband and UVA. Also, Solarc does not produce a UVA Users Manual for any of the three device families, so it will be necessary for you to obtain UVA exposure guidelines from your physician. When changing waveband types it is also necessary to change the device's labeling.

I live in the USA; why do I need a prescription ? Do others need a prescription?
Prescriptions are MANDATORY for all shipments to USA addresses, and OPTIONAL for Canadian and International shipments. In the USA, this is strictly mandated by the US Code of Federal Regulations [21CFR801.109] "Prescription Devices". In Canada and the rest of the world, no such legal requirement exists, and device safety and effectiveness has been proven over many years. A prescription is NOT required for Canadians to claim the Medical Expense Tax Credit on their income taxes, but may be useful for an employer health insurance claim.
Even without the need for a prescription, there remains a very important role for the physician. Solarc Systems Inc. strongly advises the Responsible Person to seek the advice of a physician. In particular:
- The physician's diagnosis is needed to determine if UVB phototherapy is the best treatment option
- The physician is in the best position to judge if the patient is likely use the device responsibly
- The physician plays a role in the ongoing safe use of the device, including regular follow-up skin exams.

Note: The prescription does not have to come from a dermatologist; any medical doctor (MD) is acceptable.

How safe is ultraviolet phototherapy ?
As with natural sunlight, repeated exposure to ultraviolet light can cause premature aging of the skin and skin cancer. However, when these risks are weighed against the risks of other treatment options, often involving strong prescription drugs, ultraviolet phototherapy is usually found to be the best treatment option. SolRx devices use exactly the same bulbs as the phototherapy devices in clinics, hospitals and doctor's offices. The decision to use home phototherapy is an individual matter that requires initial physician consultation and periodic follow-up.

How do I take a treatment ?
For the SolRx 1000 Series Full Body Panel, the patient covers any areas of the body not requiring exposure and puts on the ultraviolet protective goggles. Standing 8 to 12 inches from the device, the key is put in and turned to the ON position. The timer is set to the desired treatment time for one side, the START button is pressed and the lights go on. When the first side is complete, the lights go off automatically. The patient then turns around and repeats for the other side(s). The whole procedure takes little more than the time actually spent under the bulbs. Many people take their treatment immediately after a shower, which has the added benefit of exfoliating dead skin to improve light transmission to the lesions. For 500 Series devices, the procedure is similar, but positioning is different depending on hand/foot use or spot treatment. Likewise for the 100 Series Hand-held unit. For all devices, it is important to not significantly overlap treatment areas because this may cause localized overexposure.

How often are treatments taken and how long are the treatment times ?
For psoriasis: during the "clearing" phase, treatments are taken 3 to 5 times per week. Treatment times are slowly increased with the number of exposures. The first treatments are only seconds long, working up to several minutes per side after forty or more exposures, and depending on the individual and physician advice. After significant clearing is achieved, the "maintenance" phase begins; treatments are taken anywhere from three times per week to not at all and times are reduced accordingly. For vitiligo: treatments are usually taken twice per week, never on consecutive days. Treatment times are typically less than those for psoriasis. The SolRx UVB-Narrowband and UVB-Broadband User's Manuals are complete with a detailed exposure guideline tables for both psoriasis and vitiligo. Eczema and other less common skin diseases and UVA require physician guidance for treatment times.

How long does it take to get results ?
This is of course an individual matter, but typically some remission is evident after only a few weeks. More advanced clearing requires two to six months. Long term low-dose maintenance can go on for years as determined by the supervising physician.

What are the advantages of home phototherapy ?
The greatest advantage of home phototherapy is the tremendous time savings it allows while still providing totally effective phototherapy treatment. For those that have been going to a phototherapy clinic, the convenience of home treatment eliminates scheduling problems and traveling costs, and makes missed visits a thing of the past. This is supported by **The Ottawa Home Phototherapy Study** of twenty-five SolRx home phototherapy users. For those living too far from a phototherapy clinic, a home UVB unit may be the only real option. As a condition of sale, use of a home phototherapy unit requires regular follow-up skin examinations by a physician at least once per year.

What SolRx model should I buy ?
There are several considerations when choosing a SolRx phototherapy device model. We have a brochure dedicated to helping you make the right choice. Please see our **Selection Guide.**

Continued…

How much room do I need for a SolRx 1000 series unit ?
The SolRx 1000 Series Full Body Panel is designed to take up an absolute minimum amount of room in your home. They are only 3½" thick by 29" wide and mount flat up against a wall, or in a corner, with the bottom resting on the floor. Casters are not practical because they must have a wide wheelbase to keep the unit from tipping over, and therefore greatly increase the floor space needed. Casters also increase the distance between the bottom of the bulbs and the floor, making a platform necessary for lower leg treatment. Our considerable experience has been that once the device is mounted, it is out of the way and there is little need to have it moved. The author's personal 1000 Series unit has been in the same place for over 15 years.

What are the electrical requirements ?
All SolRx phototherapy Units plug into any standard 120 Volt - 3 prong electrical outlet common to almost all homes in North America. There are no special electrical requirements. The AC Current ratings at 120Vac are:
1000 Series Full body models: 1740 = 3.1 amps, 1760 = 4.7 amps, 1780 = 6.3 amps, 1790 = 7.9 amps.
500 Series Hand/Foot & Spot models: 520 = 0.7 amps, 530 = 0.9 amps, 550 = 1.6 amps.
100 Series Hand-held model 120 = 0.4 amps. Most homes use 15 amp circuit breakers.

Are the SolRx models with more bulbs physically larger devices ?
No. For a given device family, all models use the same steel frame components and differ only in the number of bulbs installed. For example, the eight-bulb 1780 uses the same main frame as a four-bulb 1740, but the bulbs are packed in much tighter to increase the device irradiance (light power density) and reduce treatment times. Devices with more bulbs will also have more ballasts, and weigh more.

Does the unit produce a lot of heat ?
No. All SolRx Phototherapy Units use modern fluorescent bulbs and electronic ballasts where possible. They produce about as much heat as any other similar sized fluorescent bulb.

Will I get a tan using a home UVB phototherapy device ?
Some people report that they get a tan and others don't. UVB is known to create more melanocytes in your skin, the cells needed for maximum skin darkening, but UVA light is the primary contributor to tanning. Dosages also play an important role. The SolRx Users Manual provides conservative treatment times. Excessive tanning has not been reported. More likely is some temporary skin reddening if the dosage approaches its maximum. (erythema)

Will the UV light fade colours in the room ?
It is a fact that prolonged exposure to ultraviolet light will fade colours. However, this requires considerable cumulative amounts of UV light. Because a home UVB unit is used relatively infrequently, (as compared to exterior paint exposed to daily sunlight), our practical experience is that colour fading is not an issue. If it occurs, it is barely perceptible. The only possible exception to this is that fine art should be protected.

How long do the UV bulbs last ?
Under normal home phototherapy usage, the bulbs have a useful life of at least three to five years, and as many as ten years. Fluorescent bulbs gradually lose power over time so that over many years, treatment times are perhaps double that of new bulbs, but the type of light remains consistent (has nearly the same relative spectroradiometric profile). The decision to replace bulbs is therefore only a matter of the patient's tolerance of longer treatment times. SolRx devices use standard UV bulbs available from several different suppliers. (Not 'Special' bulbs with special end connector arrangements.) UVB lamps are very specialized and cost CDN$50 to $120 each, depending on type.

Why are the UVB bulbs so expensive ?
There are several reasons why medical fluorescent UVB bulbs are expensive:
- To allow passage of the UVB light, expensive and sometimes difficult to obtain quartz glass must be used. Standard glass filters out UVB light.
- Medical UVB bulbs are produced in much smaller quantities than other fluorescent bulb types.
- Medical bulbs are subject to higher regulatory standards, controlled distribution and greater compliance costs.
- In the case of Philips TL/01 UVB-Narrowband bulbs, the phosphor (white powder) within the bulb is expensive to produce and has legacy development expenses.
- The bulbs are fragile and subject to shipping damage losses.

What maintenance does a home phototherapy device require ?
The only maintenance that is required is the occasional cleaning of the bulbs and reflectors using any common glass cleaner. We also recommend checking the accuracy of the digital timer periodically. Appropriate maintenance instructions are given in the SolRx Users Manual.

What is the warranty ?
Solarc is ISO-13485 (medical device) certified. We use only the highest quality components and manufacturing methods in the construction of the SolRx Home Units. These devices have an excellent track record of reliability and boast a four year warranty on the device and an unequalled one year limited warranty on the bulbs.

Continued…

What if the unit arrives damaged ?
Any product containing glass bulbs is at risk of shipping damage. Our shipping containers are highly developed and heavy duty, but yes, there are times when damage does occur. In the vast majority of cases, this is simply a broken bulb(s). Our long-standing **Arrival Guarantee** policy is to immediately ship the replacement bulbs (or any other part if necessary) at no cost to the customer. We ask that the customer make the repairs on site. Solarc reserves the right to request proof of the damage.

Does Solarc Systems ship to the USA ?
Routinely. All Solarc/SolRx devices are US-FDA compliant. Payment is made in US dollars using the US Order Form. The amount listed is all that you pay, freight and brokerage included. The devices are NAFTA eligible and duty free. Solarc does not collect any US taxes. If US taxes are payable, they are payable by the purchaser.
Our US website is located at **solarcsystems.com/us_main.html**

Does Solarc Systems ship Internationally ?
Yes. We have been using a single reliable freight forwarder for several years. Some of the countries and remote locations we have supplied products to include: Alaska, Albania, Australia, Brazil, Cyprus, Guam, Hawaii, Hong Kong, India, Israel, Italy, Korea, Mexico, New Zealand, Panama, Qatar, Saudi Arabia, United Arab Emirates, United Kingdom, Yukon. Extra freight charges apply. All shipments are air-freight to the nearest international airport, where the customer is responsible for importing the device according to local requirements. There is no "door-to-door" delivery. You must go to the airport to pick up the product. All import customs, duties and brokerage is payable by the purchaser. The device is shipped with our standard customs paperwork package, including a commercial invoice and product identification. All the paperwork you need is typically attached to the outside of the shipping box. Pricing is per the US order form, plus extra freight charges supplied by quote. We can converse by email in any language using a web translator such as Altavista's Babelfish. We are pleased to help our friends worldwide.

Will my insurance company help with the cost ?
Many insurance companies recognize home phototherapy equipment as 'Durable Medical Equipment' (DME), and will help with some or all of the initial purchase. Sometimes; however, this requires some persistence because "home phototherapy device" is sometimes not on the insurance company's list of pre-approved devices. The best results are usually obtained by referring the request to more senior human resources staff, and making the case that the device will save drug costs and improve quality of life. A Doctor's letter to that effect is also useful. Solarc continues to work at getting all insurance companies to cover this equipment. See also: **Tips for Insurance Reimbursement** brochure.

Can I claim home UV phototherapy equipment on my Canadian income taxes ?
Yes. The 2005 Canadian Federal Budget added "phototherapy equipment for the treatment of psoriasis and other skin disorders", as an allowable "Medical Expense Tax Credit" (METC), as listed in the Income Tax Act, 118.2(2)(i). A prescription is NOT required. Please visit our **METC** webpage for more info.

How Do I Place An Order ?
Solarc Systems requires the following to complete an order for Home Phototherapy equipment:

- If applicable, a physician's prescription indicating UVB-Narrowband or UVB-Broadband home phototherapy device **OR** the completed "Physician's Approval" section of the Order Form. Note: The physician does NOT have to be a dermatologist; any medical doctor (MD) is acceptable.
- The Solarc Order Form completed by the patient or responsible person, including the signed Terms & Conditions of Sale;
- Payment by **VISA, Mastercard** or cheque payable to: **"Solarc Systems Inc."**. Certified cheques are processed immediately. Personal cheques may require 5-10 business days for clearance before shipping.

Fax (705-739-9684), Scan & Email, or Mail your order to Solarc Systems using the contact information that appears in the top left corner of the Order Form. We will acknowledge your order as soon as it is received. Prescriptions may be subject to verification with the physician. Shipping is normally from stock, next day direct to your home and takes one to nine working days depending on the destination. It takes about 30 minutes to unpack and setup a 1000 Series device. 500 Series devices take about 15 minutes to unpack and setup. 100 Series Handheld units are ready to go. An invoice marked "Paid" is supplied for submission to your insurer or for tax purposes. See also our **Home Phototherapy Ordering Information** webpage.

More Questions ?
If you have any more questions, please contact us toll free at **1-866-813-3357** [705-739-8279]. We can also be reached by fax at 705.739.9684 or by email at: **info@solarcsystems.com .** Alternatively, visit our website at **SolarcSystems.com** for much more information and pictures. The website has a **Contact Us** section where you can send a message.

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SolR™ Understanding Narrowband UVB Phototherapy

"Narrowband" UVB has become the phototherapy treatment of choice for psoriasis, vitiligo, atopic dermatitis (eczema) and other photoresponsive skin disorders. Understanding the benefits of "Narrowband" UVB versus conventional "Broadband" UVB phototherapy requires an understanding of light and the processes it affects.

The spectrum of optical radiation (light) is made up of different wavelengths of "light" ranging from 100 nanometers (nm) in the ultraviolet (UV) range to 1 millimeter (mm) in the infrared (IR) range. Visible light spans from about 380nm (violet) to 780nm (red). Ultraviolet ranges from 380nm down to 100nm, and is further subdivided into UVA (315-380nm), UVB (280-315nm) and UVC (100-280nm).

FIGURE A shows the relative intensities of natural "light" reaching the earth's surface after filtering by the earth's atmosphere. Humans have evolved being exposed to all these wavelengths, so our skin has developed responses to use the light beneficially and to protect us from over-exposure (tanning). "UVB-Narrowband" is highlighted at 311nm and occurs naturally in sunlight, but not in great amounts. The earth's atmosphere filters nearly all light less than 300nm.

FIGURE A

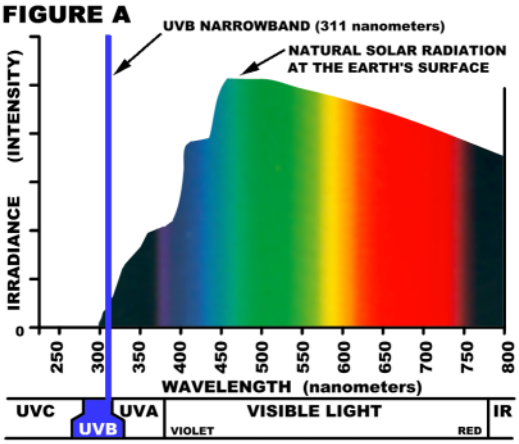
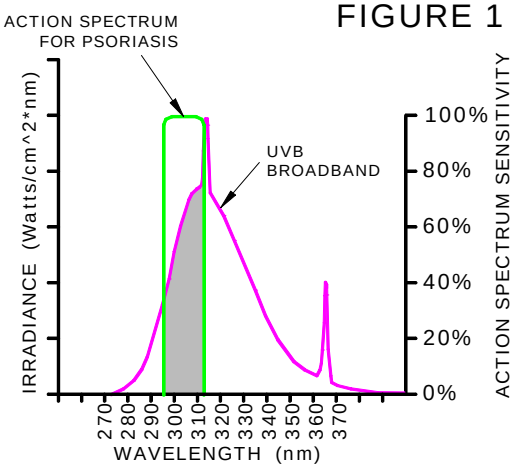


FIGURE 1

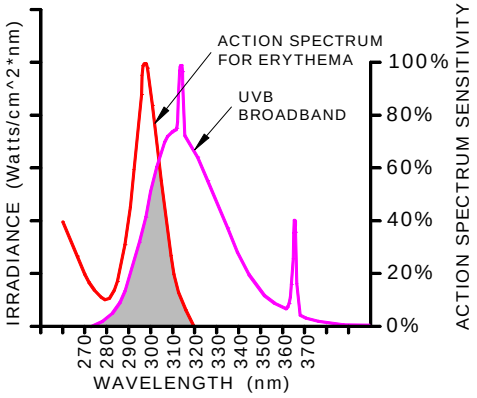


Different wavelengths of "light" produce different effects on materials. Many important processes have been scientifically studied to determine the relative contribution of each wavelength to the studied process. Graphs known as "action spectrum" are used to describe these relationships. The greater the "action spectrum sensitivity", the more responsive is the process to that wavelength.

The action spectrum for Psoriasis has been studied [1] [2] to determine that the most therapeutic wavelengths are 296 to 313 nm. Conventional UVB-Broadband lamps cover this range and have been used successfully for many years. **FIGURE 1**

The action spectrum for "sunburning" of human skin, also known as "erythema", has also been studied. Erythema is dominated by the lower wavelengths (less than 305nm) of the UVB range. Unfortunately, conventional UVB-Broadband lamps produce a large amount of "light" in this erythemogenic range. These wavelengths produce burning but have little therapeutic value. What's more, the onset of burning is normally the limiting factor in the amount of UVB that can be administered [3] and erythema is a major risk factor for skin cancer. Erythema also causes patient discomfort, which may discourage some patients from taking treatments. The grey shaded area in **FIGURE 2** gives a graphical representation of the substantial erythemogenic content of UVB-Broadband lamps.

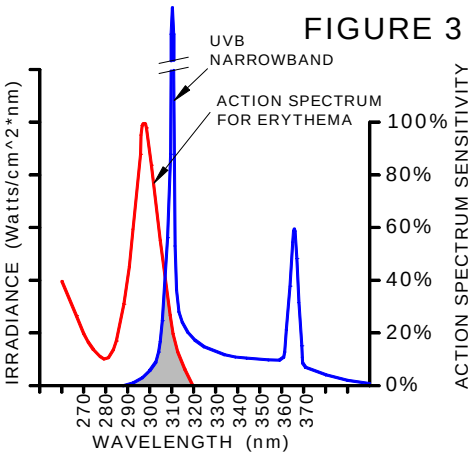
FIGURE 2



So why not develop a light source that produces most of its output in the psoriasis action spectrum and minimizes light in the erythema action spectrum ?

Continued…

SOLARC SYSTEMS INC.



In the late 1980's, Philips Lighting of Holland developed just such a lamp, known as the "TL-01" or "UVB-Narrowband" lamp. The smaller grey shaded area in **FIGURE 3** shows that UVB-Narrowband lamps have considerably less erythemogenic output (sunburn potential) than conventional UVB-Broadband lamps. This means that more therapeutic UVB can be delivered before erythema occurs. And since erythema is a risk factor for skin cancer, these new lamps should theoretically be less carcinogenic for the same therapeutic results. [4 5 6 7] Furthermore, and critical to the success witnessed by home UVB-Narrowband phototherapy, it becomes much more possible that the disease is controlled without ever reaching the erythemogenic threshold [9 10], which was always a problem with UVB-Broadband treatments.

With the goal being to minimize the total cumulative dosage of erythemogenic ultraviolet light in a patient's lifetime, it follows that younger people should consider using UVB-Narrowband. It is interesting to note that the peak of the UVB-Narrowband curve is about ten times higher than the UVB-Broadband curve; thus the source of the name "Narrow Band".

More recent studies have confirmed these findings and also determined that UVB-Narrowband has fewer burning incidents and longer remission periods than UVB-Broadband. When compared to PUVA, UVB-Narrowband has significantly fewer side effects and has replaced it in many cases.[8] UVB-Narrowband is also capable of producing good therapeutic results without the patient ever reaching the erythemogenic threshold.[9 10]

One disadvantage of UVB-Narrowband is that, because the maximum dosage is limited by the onset of slight erythema, and UVB-Narrowband is less erythemogenic than UVB-Broadband, longer treatment times are required. This can be compensated by increasing the number of bulbs in the device.[4 5 6 7] For example, based on Solarc's home phototherapy after sales follow-ups, for UVB-Broadband the 4-bulb 1740UVB provides reasonable treatment times; whereas for UVB-Narrowband, the 8-bulb 1780UVB-NB is the preference. (For skin types I to III; which is generally white caucasions.) The theoretical ratio of erythemogenic potential of UVB-Broadband to UVB-Narrowband is in the range of 4:1 to 5:1 .

Other diseases such as vitiligo, mycosis fungoides (CTCL), and many others have also been successfully treated with UVB-Narrowband, generally for the same reasons as described above for psoriasis. UVB-Narrowband also has applications for vitamin D3 photosynthesis in human skin; a subject receiving increasing attention. As a side note, it is interesting that one of the most commonly prescribed topical creams for psoriasis: Calcipotriol (trade name: Dovonex®) is actually a vitamin D derivative and is sometimes referred to as "sunshine in a tube".

The prevailing opinion in the dermatology community is that UVB-Narrowband will largely replace UVB-Broadband as a treatment option, especially for home phototherapy. This is clearly supported by Solarc Systems' trend in home phototherapy equipment sales, with the sales of UVB-NB devices now outpacing UVB-BB sales by at least 20:1. However, UVB-Broadband will likely always have a role. Solarc's UVB-Narrowband models have an "UVB-NB" suffix in the model number, such as 1780UVB-NB. Solarc's UVB Broadband models have only a "UVB" suffix, such as 1740UVB.

Solarc Systems would like to thank the good people at Philips Lighting for developing the UVB-Narrowband product line, and helping so many of us worldwide manage our skin problems safely and efficiently.

Note: The figures used in this document are simplified representations. The UVB-Broadband curve is derived from the Solarc/SolRx 1740UVB and the UVB-Narrowband curve is derived from the Solarc/SolRx 1760UVB-NB.

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Narrowband UVB Home Phototherapy for Psoriasis, Vitiligo & Eczema

SolR™ Testimonials & Customer Feedback

It is our greatest pleasure to hear the success stories of our customers, and a great source of inspiration.
This is a sample of some of the comments we have received. Most of these are "cut & paste" from emails.
In some cases, minor editing has been done to remove personal items and improve readability.
All initials have been changed in keeping with our privacy policy. Text in [square brackets] was added by Solarc.
Please see our website **SolarcSystems.com** for hundreds more testimonials just like these.

SolRx devices are used mostly for the treatment of psoriasis, so most of these comments are related to psoriasis. Where other skin diseases have been treated (such as vitiligo, eczema or vitamin D3), indication is given.

I can't even begin to express to you how this device has changed my life. Within a few days of treatment I saw a difference. Now, most of my spots have been reduced to just dry or pink patches with little to no flaking. I can wear short sleeved shirts without a second thought for the 1st time in nearly 10 years. My psoriasis had been getting progressively worse (new patches and the old one's were always growing), but with the UVBNB, many are completely gone with no sign of them returning and others, close to my feet are a bit resistant. Overall, I feel I have my life back, like the sentence of home confinement has been lifted. I feel liberated! Now I pretty much just do maintenance treatments maybe once a week. My insurance company is United Health Care; and after much ado, and many calls, they finally paid 90% of the cost. Phenominal! I was very lucky and very persistant. So, I guess you could say I'm SUPER happy with your product. If I believed in miracles I would have to say this is one. wish this was the only line of treatment given to psoradics, I mean for 10 years I've used steriods that did nothing but aggravate the situation, and within days...DAYS!!! I saw a significant difference. Thanks for checking in, I've been looking forward to telling you all Thank you! H.C.

I am using my Solarc System to treat psoriasis. I have had psoriasis for approximately 18 years and have found UV light treatment to be the most efficient. I am overjoyed with the convenience of owning my own light and have had consistent clearing of the scales except for a few stubborn areas. This is the first time in years that I was able to wear a sleeveless dress to a formal Christmas party (something that most women take for granted). Presently I use the machine three to four days in a row followed by one day off. I started treatment in late August and currently am up to 2 minutes, 30 seconds per front and back. I am finding my stubborn patches are along my sides so I rotate accordingly during the 2:30. I find this amount of time is working for now. I also keep my face covered during treatment. I guess I am in maintenance mode. Overall, this machine has greatly improved the quality of my day to day life. I am no longer looking over my shoulder for flakes of skin. I feel more confident wearing short sleeve shirts, etc. I feel like I have control over my psoriasis without the dreaded relapse of other treatments like topical ointments. The winter climate in Winnipeg is also tough on my skin especially when there is a major cold snap. Because I have been able to keep my psoriasis in check I notice less discomfort related to cold dry weather. Thank you for developing this product. I wish I had found out about it sooner. It is worth every cent. E.V.

I think I purchased my unit from you around 1993. It's a 6-ft/6-bulb UVB unit. Amazingly, not one bulb has burnt out. I use it mostly during the winter, whenever I get a bad flare-up. I start at around 30 sec and work my way up to about 3 minutes. The highest I think I've got it up to was 5 minutes per side, but that was a long time ago. I use it around 1 month at a time. That usually helps although never truly clears up my skin. I don't want to over-do it because I'm concerned about long-term side effects like skin cancer. Thus, I only use it when I really need it. I'm very satisfied with the UVB unit. Thanks S.N.

After 15+ years of every diagnostic and therapeutic treatment known to medicine, I am SO happy to say that the light therapy is wonderfully effective. The machine works great, delivery no problem.M.F.

You wouldn't believe the remarkable change in my feet and hands. The treatments took about 3-4 weeks before I was able to see a difference, but now I can go barefoot (even outside) and I can wear sandals again. I can also shake people's hands and receive change from clerks without feeling embarrassed about how my hands looked. I haven't had any problems with the equipment at all. As a matter of fact, it sits under my computer desk and when I'm working on my computer, I do my treatment and I'm done. No skin burns or adverse effect, only tan feet and hands! It's a wonderful product and the service that you gave us Steve, was great. We were very successful with our insurance claim. They paid 80% of the charge and we received our check within 7-10 business days after paying Solarc. Our insurance company is Aetna. It is an unbelievable product and I would recommend it to anyone who was having the problems that I was having. W.Y.

I've been using the phototherapy for a few months now and have been pleased with the results. Initially there was about 90% clearing on my elbows and ankles which were my worst areas. This happened after about 15 to 20 treatments of 2:30 minute sessions five times a week. I found now that my ankles and elbows have flared up again. I'm doing 3 minute treatments on alternate days which seem to keep it at bay but it is not clearing up like on the first go around. My skin has a good tan so there is no reddening with the treatment. All in all this is still the clearest my skin has been in ages. All other mild spots have disappeared. Of all the products I've tried over 40 years this is the best I've ever looked and my only regret is that i did not learn of your product earlier which would have changed the way I lived my younger years dramatically. Thank you again C.M.

I purchased my Solarc system in December of 2004 and it only took 3 months to totally clear my psoriasis. Since then I have only been using it for maintenance and have stayed 99% clear of any major outbreaks. When I see a spot I simply treat it a couple of times and it goes away. The best thing about using this product is that I can do it in the privacy of my home, on my schedule, no more creams, or doctor's except for the checkups to make sure that I am not over exposing. I strongly feel this product was well worth the money and I did not try to recoup the cost through my insurance. I would recommend this to anyone who has suffered with psoriasis. My machine has worked without any problems and any burns that I may have gotten where simply because of too much exposure to a new area (white skin) but only minor burning. I love this product and it will always be my new best friend. It is finally nice to be able to wear shorts and tanks tops again especially in the hot summer months. Thank you for such a wonderful product. T.S.

I'm pleased to say that my skin has completely cleared. So much in fact that I'm not even using any topicals. I'm currently on a maintenance program of one treatment a week. The machine has performed flawlessly. I have had no burns, but was very cautious even cutting back the starting times from the manual. I'm extremely happy with the machine. K.L.

I am very pleased with your product. My skin has improved significantly and there have been no problems with the unit. R.A.

The Phototherapy System works much faster and better than any medication that I have tried previously. T.Z.

I have been using the System, almost exclusively to treat the palms of my hands. The treatment has been going well; my skin condition has been as good as it was when I was under a physician's care. No problems with the equipment or User's Manual. I have not had any burns or other adverse effects. I was successful with my insurance claim. Thank you for your product. R.M.

Your knowledge and service is spectacular. I really mean that. T.G.

Started using the UVNB 550 April 2006. [550UVB-NB] Oh yes there is marked improvement!!! I have had a couple small area burns where the rays were overlapping, (my fault) and I tried to go too fast there at one point, but now I have things under control. I had been using tanning booths for a couple months before I started the light so I started at one minute. I quickly learned I could up this quite a bit to start with. I think I then went to two minutes with no pink so I raised it maybe 20 or 30 secs and then I started getting pink so I backed off 10 secs and gradually went up 10 secs every other day till I think I'm at a maintenance dose now at 4:30. I do treatments usually 2 or 3 days apart. There are a few of the "stubborn" plaques maybe two that are still there from the beginning but much improved. Besides that, all original ones are gone and unfortunately I am generating new plaques all the time but in small numbers and so are easily taken care of with the light. I must say I'm way ahead of where I started. I am impressed with the construction of the 500 series SolRx. It is durable and has very little plastic!!!!! N.R.

My psoriasis has seen tremendous improvement since the time I started using the home therapy system. I would say I have seen at least an 80% improvement - I have had no problem at all with the equipment and the user manual - I have had no skin burns or rashes - I think the product is great as it is and does not need any significant improvement. M.B.

Your service has been one of the best. S.G.

Just wanted to give you an update. My psoriasis is almost completely cleared (I'm the only one that can see it really). I'm so excited. It's been 2 ½ years since I last saw my skin looking so good. Such a relief and a boost to my self confidence. Up until 3 weeks ago I thought I'd be wearing long sleeves and pants all summer long – not anymore! T.C.

I am doing well and the treatments are working. I have had Vitiligo for about twenty years. It has always responded well to phototherapy treatments, but then returned when the treatments stopped. With my home unit, I believe it is reasonably to expect complete re-pigmentation (which I have attained before). After that, I am hoping to use my SolRx System for maintenance purposes. I am completely satisfied with my unit. My insurance company gave me a quick pre-authorization. This was based upon a letter from my physician indicating the likelihood of my needing treatments for some time to come. In my own letter, I pointed out the cost savings to them. It is far less expensive to make this one-time purchase than to pay for on-going clinic treatments. R.T. (vitiligo)

I am so pleased with the Home Phototherapy System - I don't know how I was able to get by without it. I am so happy. Not only has my psoriasis improved - but the convenience is absolutely fabulous. L.B.

I am really pleased with the lamp. I did not have any problems in installing it and in using it. My condition improved significantly. My psoriasis decreased of 80% which is just great. I'm really pleased with the service I received from you. M.R.

Just wanted you to know that I received the bulbs today. Everything was in excellent condition. Thank you for including the goggles with the order. I forgot to order them when I ordered the bulbs. Again, thank you for your excellent personal professional service. S.T.

Yes my skin improved greatly. Besides few stubborn spots my skin is clear. Also I have made some lifestyle changes which together with light therapy worked well. No problem with either equipment or manual. W.A.

Just a short note to say that I received a [Canadian] federal tax credit for the unit that I purchased from you. [The amount refunded] depends on a persons income ... I saved $ 887.44 which worked out to about 32.5% of $2728.50. S.T.

I am using the phototherapy unit to treat my patients here on Guam. I am using it for psoriasis, vitiligo, severe eczema. It is working great, and has made a tremendous difference to the lives of quite a few people. There have been no side effects except for mild redness, ever. Only one person failed to improve significantly with the treatment (psoriasis person). It has been most rewarding to treat these folks, particularly the children, with no side effect and such great results. I am very happy with your unit. I had originally wished for a full box, but the folks come in do one side, turn around and do the other, and out they go. The extra few minutes does not make a difference in my practice. J.L. (MD)

I just wanted to thank you for all your help with the UVB panel. It's only been 3 weeks since I have began using it and I am already seeing a significant difference. I no longer have to feel embarrassed about my skin and wear long sleeved shirts in this sweltering heat. This machine is really a blessing for patients like me who cannot try any sort of other treatment because they are trying to conceive. However, despite that, I personaly believe that light treatment is the safest, most effective and most convenient treatment for psoriasis, regardless of the patient profile. I only wish that I had purchased the machine earlier! Thanks again M.B. (India)

It is the most effective treatment I have used yet (15+ years) S.G.

I ordered the system to help me with Vitamin D absorption issues following gastric bypass surgery. I have actually been thinking about your company a lot. I have had a miraculous recovery from bones microfracturing. My family doctor went on this journey with me. He was my sounding board as we tried to figure out the right amount of exposure. In the initial phase, we increased exposure time in 10 second increments and eventually reached 4 minutes or so on the front and then 4 more on the back. Total exposure. I have to tell you that I was not very well initially and did not keep accurate daily records. I had used a walker 24/7 starting in December 2003. I walked without the walker June 2004. I had been to many specialists, who had left me with no hope. The news for me and my family was so big. I know there must be other gastric bypass patients that might be dealing with this issue. Unfortunately, they are probably disabled and behind closed doors in their homes, unable to live a "walking" life. The only thing I changed was the lights. The lights were the healing. M.L. (Vitamin D3)

I am happy to report that the 'system' is working just fine. It took several weeks before my skin cleared up. I diligently took the treatment every 2nd day as a suggested. The product is very solid and well constructed, the service was prompt and excellent. G.A.

My skin has improved significantly! The equipment is working fine...no problems. K.A.

I am almost completely cleared. I only have maybe two or three little pea sized lesions. I have had absolutely no problems with the light box. It has truly made a world of difference. I don't have to worry about the stresses of going to the Dermatologist for treatment. I can do them in the comfort of my own home. Keep doing what you are doing. This was one of the smoothest purchases I have ever done. I was really impressed with your service. I was a little nervous at first; making such a large purchase on line. But you were courteous and the delivery was prompt. I will definitely recommend your company to anyone that that I know that needs therapy. N.T.

My [SolRx] unit has changed the way I live forever. J.M.

Comment by Solarc Systems:
We believe that the success achieved by these patients is owing to their following of the SolRx User's Manual and its exposure guidelines. During the clearing phase, the patient must diligently take their treatments, increasing treatment times slowly to avoid erythema; a process greatly simplified by UVB-Narrowband. Once clearing is achieved, treatment times and frequency can usually be significantly reduced, as the patient finds a balance between UVB dosing and their skin's condition, with the goal being to minimize total lifetime cumulative UVB exposure. Fortunately, once a patient knows that their skin condition can be easily controlled, and since the treatment sessions are inherently boring, there is less tendency to over-treat. It is possible that these devices are only replacing the environmental UVB that our ancestors would have received naturally.

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The Ottawa Home Phototherapy Study

Are Narrow-band Ultraviolet B Home Units a Viable Option for Continuous or Maintenance Therapy of Photoresponsive Skin Diseases?

Original article by Kay-Anne Haykal and Jean-Pierre DesGroseilliers

From the University of Ottawa Division of Dermatology; Phototherapy Clinics, Ottawa Hospital Civic Campus; and Sisters of Charity Ottawa Health Service, Elisabeth Bruyere Health Centre, Ottawa, Ontario, Canada.

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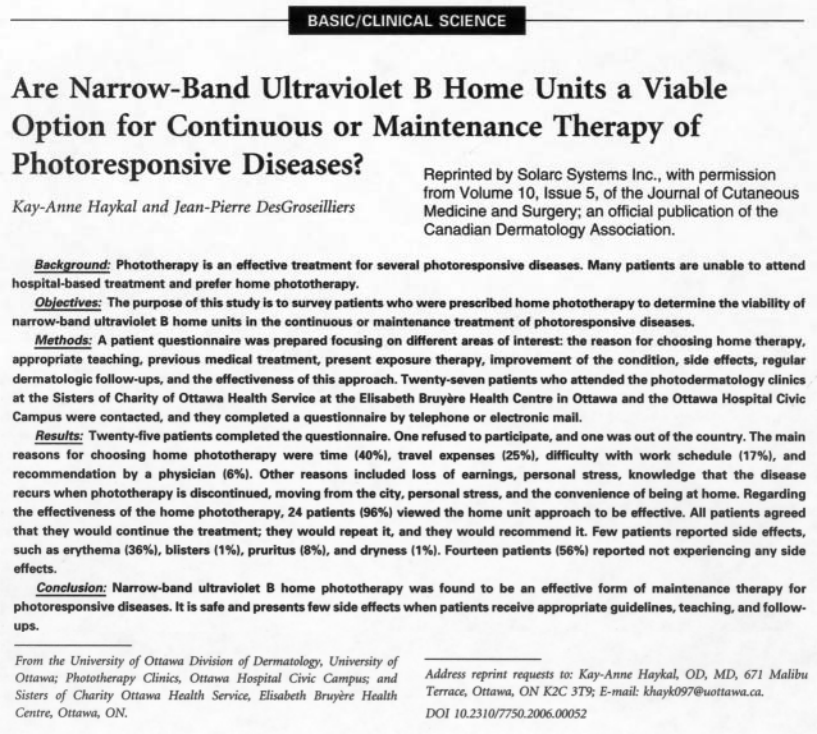

BASIC/CLINICAL SCIENCE

Are Narrow-Band Ultraviolet B Home Units a Viable Option for Continuous or Maintenance Therapy of Photoresponsive Diseases?

Kay-Anne Haykal and Jean-Pierre DesGroseilliers

Reprinted by Solarc Systems Inc., with permission from Volume 10, Issue 5, of the Journal of Cutaneous Medicine and Surgery; an official publication of the Canadian Dermatology Association.

Background: **Phototherapy is an effective treatment for several photoresponsive diseases. Many patients are unable to attend hospital-based treatment and prefer home phototherapy.**

Objectives: **The purpose of this study is to survey patients who were prescribed home phototherapy to determine the viability of narrow-band ultraviolet B home units in the continuous or maintenance treatment of photoresponsive diseases.**

Methods: **A patient questionnaire was prepared focusing on different areas of interest: the reason for choosing home therapy, appropriate teaching, previous medical treatment, present exposure therapy, improvement of the condition, side effects, regular dermatologic follow-ups, and the effectiveness of this approach. Twenty-seven patients who attended the photodermatology clinics at the Sisters of Charity of Ottawa Health Service at the Elisabeth Bruyère Health Centre in Ottawa and the Ottawa Hospital Civic Campus were contacted, and they completed a questionnaire by telephone or electronic mail.**

Results: **Twenty-five patients completed the questionnaire. One refused to participate, and one was out of the country. The main reasons for choosing home phototherapy were time (40%), travel expenses (25%), difficulty with work schedule (17%), and recommendation by a physician (6%). Other reasons included loss of earnings, personal stress, knowledge that the disease recurs when phototherapy is discontinued, moving from the city, personal stress, and the convenience of being at home. Regarding the effectiveness of the home phototherapy, 24 patients (96%) viewed the home unit approach to be effective. All patients agreed that they would continue the treatment; they would repeat it, and they would recommend it. Few patients reported side effects, such as erythema (36%), blisters (1%), pruritus (8%), and dryness (1%). Fourteen patients (56%) reported not experiencing any side effects.**

Conclusion: **Narrow-band ultraviolet B home phototherapy was found to be an effective form of maintenance therapy for photoresponsive diseases. It is safe and presents few side effects when patients receive appropriate guidelines, teaching, and follow-ups.**

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DOI 10.2310/7750.2006.00052

STUDY SUMMARY:

In 2006, after several years of prescribing Narrowband UVB home phototherapy for patients that "had already responded favorably to phototherapy" at one of the Ottawa clinics, this independent medical study was undertaken to assess "the viability and safety of such treatment".

It was concluded: "NB-UVB home phototherapy was found to be very effective in comparison with hospital therapy. It is safe and presents few side effects when patients receive appropriate guidelines, teaching and follow-ups. Not only is it convenient, it also provides effective savings for the patients who are unable to attend the hospital owing to time, travel, and interference with work schedule. All patients on home therapy were satisfied with their treatment, plan to continue it, and recommend it to others in similar situations."

A summary of the article's FACTS are: (With direct quotes from the article in "quotation marks".)

- Twenty-five patients took part in the study; 12 women and 13 men.
- The mean age was 49 years. Ages ranged from 10 to 72 years old.
- Of the 25 patients; 20 had psoriasis, 2 had vitiligo, 2 had mycosis fungoides, and 1 had atopic dermatitis.
- "The duration on home therapy varied from 2 weeks to 1.5 years, and the number of treatments to date was in the range of 10 to 200 treatments."
- All patients "had already responded favorably to phototherapy" at one of the Ottawa clinics.
- All patients used Narrowband UVB home phototherapy devices with Philips /01 311nm bulbs.
- All patients used Solarc/SolRx home phototherapy devices exclusively.
- Of the Solarc/SolRx devices used; 18 were 1000 Series full body panels (1760UVB-NB and 1780UVB-NB) and 7 were 500 Series Hand/Foot & Spot devices (550UVB-NB).
- The survey consisted of approximately 30 questions. See the Appendix in the article for the actual questions.
- "Solarc Systems Inc. provided no financial support for this study."

A summary of the article's FINDINGS are: (With direct quotes from the article in "quotation marks".)

- "Twenty-four (96%) viewed the home unit approach to be effective, and only one patient was not yet convinced." (That patient had the device only for 2 weeks.)
- "All patients agreed that they would continue the treatment; they would repeat it, and they would recommend it."
- "Few patients reported any side effects."

Continued

- "12 patients (48%) described their improvement to be marked, 12 patients said that it was average and only 1 patient reported that it was minimal." (That patient had the device only for 2 weeks.)
- "In comparison between home versus hospital phototherapy, 6 patients (25%) regarded home treatment to be superior, 12 patients (48%) had similar results, and 7 patients viewed the hospital therapy as more effective."
- "Twenty-four patients (96%) believed that the information received by SolArc Systems Inc. was helpful."
- "Twenty-three patients (92%) felt that the ease of operation of the home unit was high, and only two patients said that it was average."
- "Nurses and dermatologists who do not operate a phototherapy center should be aware of the detailed instructions provided by SolArc Systems Inc.. Their role becomes more one of professional follow-up rather than one of education on the operation of the home unit." (Acknowledging the usefulness of the Solarc/SolRx Users Manual.)
- "Over time, it seems that all patients achieve appropriate clearing and recommend home treatment."
- "More than half of the patients were on maintenance treatment as they have acheived resolution of the lesions. It appears that long-term maintenance can be achieved with doses less than one-quarter the minimum erythema dose." (Suggesting that once clearing is achieved, only low UVB-NB doses are needed to maintain substantially lesion-free skin.)
- "The main reasons for choosing home phototherapy were fewer travel expenses, less time required, less difficulty with work schedule, and recommendationi by the dermatologist."
- "Sixteen patients (64%) felt that the home phototherapy generated fewer expenses, with the monthly savings varying from $20 to $600 depending on the distance traveled and associated expenses and on the work hours missed."

These findings are consistent with the customer feedback Solarc has received in our **Testimonials** section.

Solarc Systems would like to thank Dr. Kay-Anne Haykal, Dr. Jean-Pierre DesGroseilliers and all the staff at the Elisabeth Bruyere and Ottawa Civic Hospitals for completing this study, and their purity of purpose.

Would you like a complete copy of The Ottawa Home Phototherapy Study ?

Just download it from our website's **DOWNLOAD CENTER**, or call us toll free at **1-866-813-3357** [705-739-8279]
We can also be reached by fax at 705.739.9684 or by email at: **info@solarcsystems.com**
The website has a **Contact Us** section where you can send a message.

SolR™

Tips for Insurance Reimbursement - USA

Doctor's Letter of Medical Necessity / Patient's Letter to Insurance Company

It is often possible to receive full or partial insurance coverage of physician prescribed home UVB phototherapy equipment, but this may take some effort and persistence. First, check to see what your insurance benefit plan coverage is for "Durable Medical Equipment (DME)", and determine the exact procedure for making an application. Visit your insurance company's website or call them if necessary.

They will want to know the generic CPT/HCPCS "Procedure Code", as follows:

For **more than one** **E-Series E720 6 foot Expandable device,** the code is **E0694**, "UV **multidirectional** light therapy system in 6 foot cabinet, includes bulbs/lamps, timer and eye protection", subject to verification with your insurance company.

For **a single** **E-Series E720 6 foot Expandable device** or the **1000 Series 6 foot full body panels** the code is **E0693**
"UV light therapy system panel, includes bulbs/lamps, timer, and eye protection; 6 foot panel."

For the **500 Series Hand/Foot/Spot device** and **100 Series Hand-held models**, the code is **E0691**
"UV light therapy system panel, includes bulbs/lamps, timer, and eye protection; treatment are 2 square feet or less."

If your insurance company does not typically cover "Durable Medical Equipment" or a "pre-authorization" is required, it may be necessary for you to supply your physician with a copy of the following "Doctor's Letter of Medical Necessity" (over) and ask if they have time to create a personalized version of this for you on their stationery, or have them simply fill in the blanks. There may be a cost for this. The website's Download Center has an editable MS-Word (.doc) template that you may wish to provide on disc for their convenience. You can make this request at the same time you get a prescription. You may also be required to submit your medical records and past insurance claims; also available from your physician's office. Once this work is complete, there are two approaches:

1) Make your claim directly to your insurance company.
This is the simplest approach, but will require that you pay for the product in advance, then be reimbursed by your insurance company. Because there is no intermediary, this will ensure the lowest possible product cost to your insurance company and minimize the deductible that you will have to pay. You may wish to complement your claim with a letter to your insurance company using the "Patient's Letter to Insurance Company" below. (Also available in MS-Word format from the website "Download Center".) This is your opportunity to make a "business case" for acquiring the device. In other words, based on your usage of drugs and other costs, will the device pay for itself? If you need a "Proforma Invoice", please contact Solarc Systems and we will fax or email one to you promptly. Once your claim is approved, you will receive an authorization letter from your insurance company. Then submit your order to Solarc using our standard order form. The product will be shipped directly to your home and include a signed and dated invoice that you can use as proof of purchase. Complete your claim by submitting the invoice to your insurance company for reimbursement. Keep a copy of the invoice for your own records.

2) Go to a local "Home Medical Equipment" (HME) supplier.
This is a company that deals in supplies like wheelchairs and home oxygen, and could even be the pharmacy you use now. The HME can deal directly with your insurance company, and eliminate the need for you to pay for the product in advance. The HME collects from your insurance company, and in turn purchases the product from Solarc. Solarc then normally "drop-ships" the product directly to your home, but in some cases the HME will make the delivery. Solarc traditionally compensates the HME by providing a discount off the standard price. However, the HME may also substantially increase the price further to your insurance company, which could result in a much larger deductible. The deductible and any other amounts are normally payable to the HME before the product will be shipped. The HME will need the following information:

Patient legal name including middle initial
Patient date of birth
Name of insurance company
Insurance company address and phone number
Insurance web site address if known
Member Identification Number
Group/Network number
Employer name or ID#
Name of Primary Insured. (This is when someone is covered by a spouse or parent)
Primary Insured date of birth
Primary Insured address if different
Name of Primary Care Physician (PCP) (often different than prescribing physician and many times necessary to place the referral)
Primary Care Physician (PCP) phone number
Solarc product and contact information, including the CPT/HCPCS "Procedure Code" listed above. (E0694, E0693, or E0691)

Continued…

SOLARC SYSTEMS INC.

Doctor's Letter of Medical Necessity for Home UVB Phototherapy Equipment

Sample Only – Modify to suit the patient's personal circumstances. Template available in MS-Word from SolarcSystems.com

Doctor's Letterhead / Name: _____ Date: _____ To Whom It May Concern,

My patient, _____, has been under my care for _____ years for the treatment of _____.
The acquisition of a UVB phototherapy device for use in the patient's home has been prescribed by me, and is deemed to be a medical necessity because:

- The patient's treatment at the nearest phototherapy clinic requires a _____ hour round trip, _____ times per week. The hours of operation of the clinic and the patient's working schedule makes this an impractical alternative, and the patient has had to stop treatment as a result. I expect that the patient will require ultraviolet phototherapy for many years to come, thus justifying purchase of a UVB phototherapy device for use in the home.
- Use of a home UVB phototherapy device would eliminate the need for the patient to leave work to visit the phototherapy clinic. The patient's treatment schedule calls for _____ visits per week, each taking _____ hours for the round trip. This has created problems for the patient's employer that could be eliminated by use of a home UVB phototherapy device.
- Because the patient's home is _____ miles/kilometers from the nearest phototherapy clinic, and the patient requires _____ treatments per week, institutional phototherapy it is not a practical option. A home UVB phototherapy device is the only way that the patient can fill my prescription for UVB phototherapy.
- The severity of my patient's skin condition has caused me to prescribe UVB phototherapy treatments _____ times per week. Since the clinic is closed _____, this is not possible unless the patient obtains a home UVB phototherapy device.

Home UVB phototherapy equipment is sold only by physician's prescription and is classified as a Class-2 Medical Device by the US-FDA and Health Canada. It is not a tanning device. (Tanning uses UVA light.)
Please carefully consider this patient's request for health insurance coverage of this equipment. To my knowledge, there are currently no government programs that will provide financial assistance.

Sincerely, Doctor's Signature: _____

Patient's Letter to Insurance Company for Home UVB Phototherapy Equipment

Sample Only – Modify to suit your personal circumstances. Template available in MS-Word from SolarcSystems.com

Patient's Name: _____ Date: _____

Patient's Contact Information: _____

To: Human Resources/Insurance Company Contact Person Name & Company Name: _____

I have suffered from _____ for over _____ years.
In that time, I have tried most of the commonly prescribed drugs to control the disease, all with mediocre results. By far the most successful treatment that I have found to date is physician prescribed "UVB phototherapy", which is basically the exposure of my skin to UVB ultraviolet light produced by a special medical device. UVB light is a natural component of the sun's spectrum and has been medically proven to be a very effective treatment for _____.

The purpose of this letter is to request health insurance coverage for the purchase of a physician prescribed UVB phototherapy device designed specifically for use in my home. I believe that it is necessary for me to acquire this equipment for the following reasons :

- My treatment at the nearest phototherapy clinic requires a _____ hour round trip, _____ times per week. The hours of operation of the clinic and my working schedule make this an impractical alternative, and I have had to stop treatment as a result. It is expected that I will require phototherapy for many years to come, thus justifying use of a home UVB phototherapy device.
- Use of a home UVB phototherapy device would eliminate the need for me to leave work to visit the phototherapy clinic. My treatment schedule calls for _____ visits per week, each taking _____ hours for the round trip. This has created problems for my employer that could be eliminated by my use of a home UVB phototherapy device.
- Because my home is _____ miles/kilometers from the nearest phototherapy clinic, and I require _____ treatments per week, institutional phototherapy it is not a practical option. A home UVB phototherapy device is the only way that I can fill my doctor's prescription for UVB phototherapy.
- The severity of my skin condition has caused my doctor to prescribed phototherapy treatments _____ times per week. Since the phototherapy clinic is closed _____, this is not possible unless I use a home UVB phototherapy device.
- Use of a home UVB phototherapy device often results in a substantial reduction in use of expensive drugs. I estimate that I have been using approximately $_____ per year of the drug(s) _____ , related directly to the treatment of my skin disease.

Please find enclosed information from a qualified supplier for this equipment. This information can also be found on the internet at www.SolarcSystems.com . The equipment is sold only by physician's prescription and is classified as a Class-2 Medical Device by the US-FDA and Health Canada. It is not a tanning device. (Tanning uses UVA light.)
I understand that many health insurance companies will cover the cost of UVB phototherapy equipment and ask that my application be given careful consideration. There are currently no government programs that will provide this assistance.

Sincerely, Patient's Signature: _____

SOLARC SYSTEMS INC.

1515 Snow Valley Road
Minesing, ON L0L 1Y3
Toll Free: 866-813-3357
Fax: 705-739-9684 (24hr)
info@solarcsystems.com
SolarcSystems.com

HOME PHOTOTHERAPY ORDER FORM
USA & International (5 Pages)

Directions for Use:

1. Read and understand the "Terms and Conditions of Sale", then complete each applicable section of the form.
2. Have your Healthcare Professional (MD or Nurse Practitioner) complete the "Healthcare Professional Approval" section **OR** attach a physician's prescription for the device. This is required for USA shipments only. Please keep copies for your records.
3. Fax, email or mail your order to Solarc. Be sure to include all applicable sides of this form. Once received, Solarc will acknowledge your order and provide shipping information.

Qty	Part Number	Product Description	Unit Price	Total
E-Series Expandable / Multidirectional Phototherapy: 6 foot panel with two 100-watt UVB-Narrowband bulbs				
	E720M-UVBNB	MASTER device with timer. Always required first.	$ 1195.00	
	E720A-UVBNB	ADD-ON device (Up to 4 allowed per Master device)	$ 995.00	
	Face Shield-M	Face Shield for MASTER device	$ 35.00	
	Face Shield-A	Face Shield for ADD-ON device	$ 35.00	
Full Body Home Phototherapy: SolRx™ 1000 Series: 6 foot panel with 100-watt bulbs.				
	1790UVB-NB	**10** Bulb UVB Narrowband (1000 watts)	$ 2895.00	
	1780UVB-NB	**8** Bulb UVB Narrowband (800 watts)	$ 2595.00	
	1760UVB-NB	**6** Bulb UVB Narrowband (600 watts)	$ 2295.00	
	1740UVB-NB	**4** Bulb UVB Narrowband (400 watts)	$ 1995.00	
	1760UVB	**6** Bulb UVB Broadband (600 watts)	$ 2095.00	
	1740UVB	**4** Bulb UVB Broadband (400 watts)	$ 1795.00	
Hand/Foot & Spot Phototherapy: SolRx™ 500 Series: Tabletop device with 36-watt bulbs. (PL-L36W/01)				
	550UVB-NB	**5** Bulbs UVB Narrowband (180 watts)	$ 1695.00	
	530UVB-NB	**3** Bulbs UVB Narrowband (108 watts)	$ 1395.00	
	520UVB-NB	**2** Bulbs UVB Narrowband (72 watts)	$ 1195.00	
100 Series Handheld Phototherapy: Small wand with two 9-watt bulbs. Includes carrying case and one set of six Aperture Plates. The Positioning Arm and UV-Brush for scalp psoriasis are optional.				
	120UVB-NB	**2** Bulbs UVB Narrowband (18 watts)	$ 795.00	
	120UVB	**2** Bulbs UVB Broadband (18 watts)	$ 795.00	
	Arm-100	Positioning Arm Kit for 100 Series units	$ 245.00	
	UV-Brush-100	UV-Brush for 100 Series (1)	$ 50.00	
	AP-100	Spare Aperture Plates for 100 Series, Set of 6	$ 25.00	
Common Replacement Ultraviolet Bulbs: Shipping & Packaging Extra. Many other UV bulb types available.				
	TL100W/01	6ft UVB Narrowband "Long" length, Philips	$ 120.00	
	TL100W/01-FS72	6ft UVB Narrowband "FS72" or "Short" length, Philips	$ 120.00	
	PL-L 36W/01	Fits Solarc 500 Series UVB Narrowband, Philips	$ 105.00	
	PL-S 9W/01	Fits Solarc 100 Series UVB Narrowband, Philips	$ 45.00	
	PL-S 9W/12	Fits Solarc 100 Series UVB Broadband, Philips	$ 45.00	
	FS72T12/UVB/HO	Fits Solarc 6ft UVB Broadband and many others	$ 110.00	
	Shipping	For replacement bulbs/beyond points. Call for pricing	$ Call	
			Total Purchase US$	

Notes:

1. The "Total Purchase" price is the entire amount that is payable, and the only charge that will be made to your credit card. This amount includes all freight, customs and brokerage. Solarc Systems does not collect any US or International taxes. If any US or International taxes apply, they are payable by the purchaser.
2. All devices are fully assembled with new ultraviolet bulbs, 1 pair ultraviolet protective goggles, comprehensive user's manual with exposure guidelines for psoriasis & vitiligo, and mounting hardware if needed. There is nothing else that you need to purchase.
3. Shipping is included to most locations in continental USA. Extra charges apply for Beyond Points & International.
4. The US Department of Homeland Security requires that imports greater than US$2500 must identify the "ultimate consignee" using the customer's social security number (SSN). Please enter* on page 2 if required.

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PATIENT / RESPONSIBLE PERSON INFORMATION (Please print clearly)

Patient Name:_____ Responsible Person Name:_____

Address: _____

City: _____ State:_____ Zip:_____

Phone: _____ Email: _____

*If purchase is greater than US$2500, provide your SSN# here: _____

Solarc Systems Inc. Terms and Conditions of Sale for Ultraviolet Phototherapy Device:

1. The "Device" is defined as a Solarc/SolRx Ultraviolet Phototherapy Lamp Unit or Ultraviolet Phototherapy Bulbs.
2. The "Patient" is defined as the person that is intended to receive ultraviolet skin treatments using the Device.
3. The "Responsible Person" is defined as the Patient or any person that is in care or custody of the Patient, such as a parent or guardian.
4. A "Healthcare Professional" is defined as a medical doctor (MD) or nurse practitioner qualified to provide advice on ultraviolet phototherapy and qualified to perform skin examinations for skin cancer and other adverse effects.
5. The Responsible Person acknowledges that they have been advised by Solarc Systems to seek the advice of a Healthcare Professional to ensure that ultraviolet phototherapy is a suitable treatment option for the Patient's diagnosis and to evaluate the Responsible Person's ability to use the Device safely.
6. The Responsible Person agrees that the Device will be used only by the Patient.
7. The Responsible Person agrees that the Device will be used only if the Responsible Person arranges and obtains for the Patient a skin examination performed by a Healthcare Professional at least once per year.
8. The Responsible Person agrees to indemnify and hold harmless the Healthcare Professional and/or Solarc Systems Inc. and/or any associated reseller from any action or claim if the Responsible Person fails to arrange and obtain for the Patient a skin examination performed by a Healthcare Professional at least once per year.
9. For Solarc/SolRx Ultraviolet Phototherapy Lamp Unit purchases, the Responsible Person agrees to read and fully understand the User's Manual supplied with the Device before the Patient's first treatment. If any part of the User's Manual is not understood, the Responsible Person agrees to consult with a Healthcare Professional for interpretation. The Responsible Person agrees to request a replacement User's Manual should the original be lost (A replacement User's Manual will be supplied free of charge by Solarc Systems Inc.).
10. The Responsible Person agrees that the Patient and all other persons exposed to the ultraviolet light produced by the Device will wear ultraviolet protective eyewear during Device operation.
11. The Responsible Person understands that, as with natural sunlight, use of the Device may cause adverse effects, including, but not limited to premature aging of the skin and skin cancer. The Responsible Person agrees that the Healthcare Professional and/or Solarc Systems Inc. and/or any associated reseller is not responsible for any adverse effects arising from the use or misuse of the Device.
12. For E-Series Devices, the Responsible Person agrees that ADD-ON Devices will only be connected to and operated from a Solarc E-Series MASTER Device, to a maximum of 4 ADD-ON Devices per MASTER Device.
13. This transaction and its terms and conditions shall be governed by the laws of Ontario and the laws of Canada applicable in Ontario.
14. Solarc Systems Inc. and the Responsible Person agree to accept signatures by fax and that they shall be legal and binding.

I understand and agree to the above:

Responsible Person Signature: ✘_____ Dated: ✘_____

SHIPPING INFORMATION ☐ Same as above

Name: _____

Address: _____

City: _____ State:_____ Zip:_____

Phone: _____ Email: _____

SolRx 1000 Series Shipping Policy: This is an overweight package (>70lbs). It is **not** possible for the courier to call before the shipment is delivered. If nobody is present at the time of delivery, the courier will leave the package at the "Ship To" address, and the delivery is considered complete. Solarc provides the waybill number and courier contact information so the package can be traced, and a delivery time predicted. If security is an issue, it is strongly recommended that the "Ship To" address be one that is likely to have somebody there during working hours, such as a place of business. Moving the package requires at least a minivan, station wagon or pickup truck OR if the device is taken out of the shipping box, it may fit into a smaller station wagon. Typical delivery times are 3 to 9 working days for stock items.

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CREDIT CARD INFORMATION ☐**VISA or** ☐**MASTERCARD only** (Please print clearly)

Cardholder Name: _____ Total Purchase: US$_____

Credit Card #: _____ Expiry Date (mm:yy) _____

3-digit "CVD code" from the back of the credit card _____

I agree to pay card issuer indicated amount pursuant to cardholder agreement:

Cardholder's Signature: ✘_____ Dated: ✘_____

Alternatively, customers can call 866-813-3357 (or 705-739-8279) and provide their credit card information verbally. Click the box below if that is your preference.

☐ I will call Solarc and provide my credit card information verbally.

Solarc may also request the cardholder's address.

Pricing valid from **June 01, 2013** and subject to change without notice.

Note: In rare cases, some credit card companies have been charging the cardholder an extra "transaction fee". These fees are not typical, completely out of Solarc's control, and are payable by the purchaser. Payment by wire transfer is available to avoid any such fees. Contact Solarc for wire transfer information.

Continued …

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Have your Healthcare Professional (Medical Doctor or Nurse Practitioner) complete the following "Healthcare Professional Approval" section **OR** attach a separate prescription slip where indicated below. Keep a copy of your prescription for your records. This is a requirement for USA shipments only, per US Federal law 21CFR801.109. Prescriptions are optional for International shipments.

Healthcare Professional Approval

To be completed by the Healthcare Professional (Medical Doctor or Nurse Practitioner)
OR attach separate prescription slip below.

I hereby authorize my Patient, _____ to obtain a ☐**UVB-Narrowband** ☐**UVB-Broadband** Ultraviolet Home Phototherapy Device as specified above. The Responsible Person understands that they must read and understand the User's Manual before using the Device, and that they must arrange and obtain for the Patient a skin examination performed by a Healthcare Professional at least once per year.

Healthcare Professional Name: _____

Address: _____

City: _____ State:_____ Zip:_____

Phone Number: _____ Fax Number: _____

Signature: _____ Date: _____

Comments: _____

I am a: ☐ **Dermatologist** ☐ **GP** ☐ **Other:** _____

Please send me **additional information** about: ☐ **Solarc** phototherapy products ☐ **UVB Narrowband**.

If faxing, use this area to attach separate prescription slip. Fully tape the top edge to prevent jamming the fax machine.

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The following ACKNOWLEDGEMENT AND INDEMNITY AGREEMENT is an OPTIONAL agreement between the Responsible Person and the Healthcare Professional (Medical Doctor or Nurse Practitioner) . Your Healthcare Professional may ask that you sign this agreement before issuing a prescription for an Ultraviolet Home Phototherapy Device:

ACKNOWLEDGEMENT AND INDEMNITY AGREEMENT

TO: _____ (*Name of Healthcare Professional)*

FROM: _____ (*Name of Responsible Person)*

_____ ***(Name of Patient)***

RE:

I, _____HEREBY ACKNOWLEDGE AND CONFIRM that I have consulted with the Healthcare Professional named above, to assist me with the initial selection and ongoing safe use of an Ultraviolet Home Phototherapy Device (the "Device").

I FURTHER HEREBY ACKNOWLEDGE AND CONFIRM that I have read and fully understand the content, limitations and instructions contained in the **Solarc Systems Inc. Terms and Conditions of Sale for Ultraviolet Home Phototherapy Device** (the "Information Document"), including but not limited to the following specific requirements:

a) The Responsible Person agrees that the Device will be used only if the Responsible Person arranges and obtains for the Patient a skin examination performed by a Healthcare Professional at least once per year.

b) The Responsible Person understands that, as with natural sunlight, use of the Device may cause adverse effects, including, but not limited to premature aging of the skin and skin cancer. The Responsible Person agrees that the Healthcare Professional is not responsible for any adverse effects arising from the use or misuse of the Device.

I FURTHER ACKNOWLEDGE AND CONFIRM that I have been advised of the implications of not following the instructions contained in the Information Document, including, but not limited to, the possibility of undetected skin cancer or other adverse effects, and I hereby indemnify and save harmless the Healthcare Professional named above with respect to any action that I may have against the Healthcare Professional named above or any of his affiliate practitioners or professional corporations should I not abide by my express obligations contained in the Information Document, including but not limited to providing my current address and full contact information to such practitioner.

DATED at _____ (city), this _____ day of _____(month) , _____(year).

_____ _____

Witness *Signature of Responsible Person*